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TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 19[illegible]13

No. [illegible]681.

THE UNITED STATES, APPELLANT,

vs.

THE UNITED ENGINEERING AND CONTRACTING COMPANY.

APPEAL FROM THE COURT OF CLAIMS.

FILED NOVEMBER [illegible], 1913.

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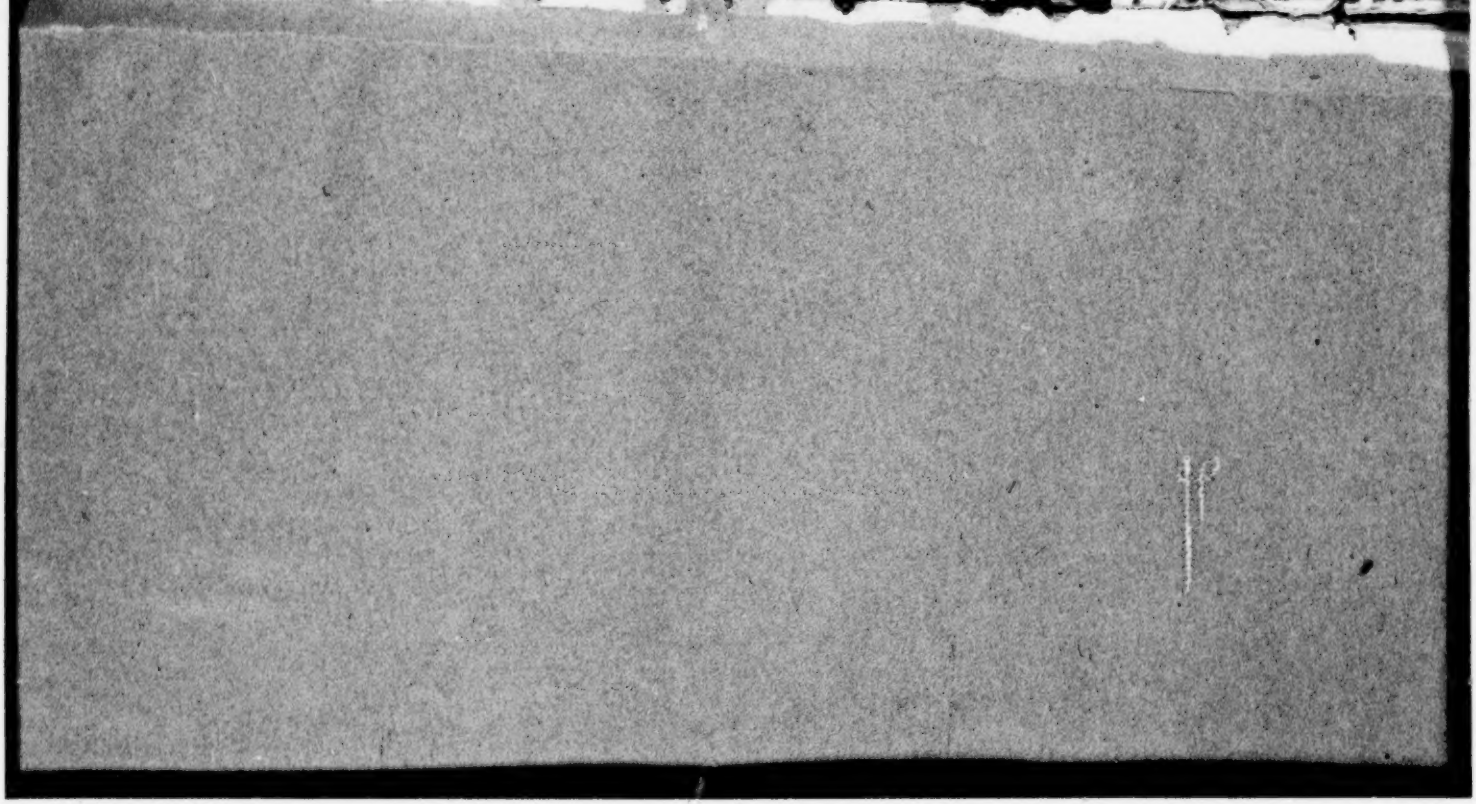

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1912.

No. 852.

THE UNITED STATES, APPELLANT,

vs.

THE UNITED ENGINEERING AND CONTRACTING COMPANY.

APPEAL FROM THE COURT OF CLAIMS.

INDEX.

	Original.	Print.
Petition	1	1
Appendix to petition	13	7
Exhibit A.—Contract No. 876, September 15, 1900	13	7
B.—Agreement No. 876-A, January 21, 1901	40	25
C.—Supplemental Agreement No. 876-B, February 16, 1903.	44	27
D.—Supplemental Agreement No. 876-C, March 7, 1903	46	29
Traverse	53	34
Argument and submission	54	34
Findings of fact	55	34
Conclusion of law	61	41
Opinion	61	41
Judgment	78	59
Motion to amend findings and for a new trial	79	60
Order on motion to amend	84	62
Application for appeal	85	62
Clerk's certificate	86	62

1

I.—*Petition.*

Filed December 9, 1907.

In the Court of Claims of the United States.

THE UNITED ENGINEERING AND CONTRACTING COMPANY, claimant,
vs.
THE UNITED STATES.
No. 30072.

To the honorable the judges of the United States Court of Claims:

The petition of The United Engineering and Contracting Company, a corporation, respectfully shows as follows:

I. Your petitioner is a corporation, duly created and existing under the laws of the State of New York, for the purpose of carrying on a general engineering, construction, and contracting business, and has its principal office and place of business in the city and State of New York. Your petitioner has at all times borne true faith and allegiance to the Government of the United States, and has not in any way aided or abetted or given encouragement to rebellion against the said Government.

II. That on or about the 15th day of September, 1900, your petitioner entered into and executed a contract in writing with the United States, which was represented in the making and execution thereof by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, in and by which it agreed, for the sum of seventy-

2 nine thousand four hundred and thirty-five dollars ($79,435.00) to furnish all necessary materials, labor, tools, and appliances for the construction and completion, in all respects, of a pumping plant for dry dock numbered three (3) at the United States navy yard, in the city and State of New York, in accordance with and subject to the conditions and requirements of the plans and specifications attached to and forming a part of said contract. Said contract was known as No. 876, and a true copy thereof is hereto attached, marked "Exhibit A," and is hereby referred to and made a part hereof.

III. That subsequently and on or about January 21, 1901, your petitioner entered into and executed with the United States, which was represented in the making and execution thereof by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, a further and supplemental contract, in writing, in and by which it agreed, for the additional compensation therein stipulated of forty-two thousand eight hundred and eighty-five dollars ($42,885.00), to make certain changes and alterations in the work which it was called upon to perform and the materials which it was called upon to furnish under the provisions of said original contract No. 876. Said

supplemental contract was numbered 876–A, and a true copy thereof is hereto attached, marked "Exhibit B," and is hereby referred to and made a part hereof.

IV. That subsequently and on or about February 16, 1903, your petitioner entered into and executed with the United States, which was represented in the making and execution thereof by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, a further and second supplemental contract, in writing, in and by which it agreed, for the additional compensation therein stipulated of nine hundred and fifty-nine dollars and eighty cents
3 ($959.80), to furnish all of the material and labor for and to construct three (3) hatches in the roof of the pump well being constructed under said original contract No. 876, in accordance with specifications and plans attached to said second supplemental contract and forming a part thereof. Said second supplemental contract was No. 876–B, and a true copy thereof is hereto attached, marked "Exhibit C," and is hereby referred to and made a part hereof.

V. That subsequently and on or about the 7th day of March, 1903, your petitioner entered into and executed with the United States, which was represented in the making and execution thereof by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, a further and third supplemental contract in writing, in and by which it agreed, for the additional compensation therein stipulated of six thousand seven hundred and eight dollars and five cents ($6,708.05), to modify the work being done under said original contract No. 876 as indicated and illustrated by a copy of the report of the board and plans attached to said third supplemental contract and forming a part thereof. Said third supplemental contract was No. 876–C, and a true copy thereto is hereto attached, marked "Exhibit D," and is hereby referred to and made a part hereof.

Your petitioner avers that it fully and completely performed, in accordance with the provisions of all of the aforesaid contracts and the specifications and plans forming a part thereof, said pumping plant, and said plant was duly accepted by the defendant, acting therein through its duly authorized officers and agents in charge of said work; whereupon your petitioner became entitled to the amount of compensation fixed and agreed upon in and by the aforesaid contracts, to wit, the total sum of one hundred and twenty-nine thousand nine hundred and eighty-seven dollars and eighty-five cents ($129,987.85); but your petitioner avers that it has been
4 paid at various times between the date when said original contract No. 876 was executed up to and including the 10th day of August, 1906, when the last payment was made, only the sum of one hundred and twenty-three thousand nine hundred and eighty-seven dollars and eighty-five cents (123,987.85) for the work done and materials furnished under said contracts, and the sum of six thou-

sand dollars ($6,000.00) was then and ever since has been withheld from your petitioner by the defendant, acting through its duly authorized officers and agents, as a penalty improperly imposed by the officers and agents of the defendant for two hundred and forty (240) days of alleged delay in the completion of said pumping plant, at the rate of twenty-five dollars ($25.00) per day.

And your petitioner avers that after the execution of the supplemental contract No. 876–A, which extended the time for the completion of said pumping plant, which had been fixed by the original contract, both your petitioner and the officers and agents of the defendant in charge of said work found that, owing to the many changes, alterations, and modifications that had been made and were necessary to be made in the plans for the construction of said plant, no date of completion could be fixed or determined upon in advance, and in the supplemental contracts No. 876–B and 876–C, which were thereafter executed, the date of completion which had theretofore been fixed was ignored and waived and no further formal extension of time for completion was mentioned.

This petitioner further avers that whatever delay there may have been in the completion of the work was due primarily to the experimental and impractical character of the design, to the mistaken location of the pumping plant, to errors made in the plans and specifications therefor prepared by the officers and agents of the defendant, and to the interruption and interference with this petitioner's work caused by the defendant using said dock, in which said pumping plant was being constructed, while said work was in progress.

5 Wherefore your petitioner claims that there is still due to it by the defendant and that it is entitled to recover from the United States the sum of six thousand dollars ($6,000.00) on account of the work done and material furnished under the provisions of the contracts hereinbefore set forth.

VII. Your petitioner further avers that during the progress of said work the officers and agents of the defandant in charge and control thereof, in addition to the work and materials called for by the aforesaid contracts, ordered and required your petitioner to furnish the work and materials itemized below in order to make alterations in and additions to said pumping plant which were not specified in nor contemplated by the aforesaid contracts and the plans and specifications forming a part thereof, but which alterations and additions were deemed necessary and essential by the officers and agents of the defendant in charge of said work to cure errors in their original designs and to fit the plant for the purpose for which it was intended; and this petitioner, pursuant to said orders, made such alterations and additions, all of which were accepted by the defendant, acting through its officers and agents authorized to accept the same, and the defendant received and has ever since enjoyed the benefit thereof.

And this petitioner avers that said alterations and additions and the fair and reasonable value of the work and material necessarily entering into the same are as follows, to wit:

1. For furnishing and setting, in or about June, 1902, one additional sixteen-inch valve for by-pass between drainage pumps, in addition to the one called for by contract No. 876–A		$442.20
2. For furnishing and setting, on or about July 11, 1903, one sixteen-inch Ludlow foot valve not called for by any of the aforesaid contracts		114.40
6 3. For substituting in or about June, 1902, two new forty-five-inch Rensselaer valves to replace two old Southwark valves with wedge gates	$1,385.00	
Less allowance agreed upon between petitioner and the chief engineer in charge of said work for old valves	450.00	
		$935.00
4. For furnishing and fitting, in or about November, 1901, covers or gear casing for valves to protect the men engaged in operating the same, which were not covered by the aforesaid contracts		479.05
5. For furnishing and placing in position during the months of May, June, September, and October, 1902, piles to support pipes for the connection to Dry Dock No. 2, and furnishing and placing of new piles to support the altar-bearers of Dry Dock No. 3, in addition to the piling provided for in contract No. 876–A		1,139.50
6. For furnishing, in or about September, 1902, materials and labor for sheet piling to remedy a leak in the dock, which was not contemplated or provided for in any of the aforesaid contracts		323.84
7. For amount paid during the month of September, 1902, for additional compensation for night work of excavators, boilermakers, dock-builders, and other workmen employed in and about said work in the construction of the new suction chamber, being work not contemplated or called by the aforesaid contracts and specifications		636.44
8. For labor and materials furnished between the months of January and June, 1903, in the reconstruction of the old suction chamber, which work was not included in or provided for in any of the aforesaid contracts		2,609.73
7 9. For materials and labor furnished in October, 1904, in renewing and putting in condition the electrical operating devices on two valves in pits connected with Dry Dock No. 2		21.73
10. For making changes in designs of lubricating devices in May, 1904, caused by changes made in the pipe line by the engineers in charge of said work		11.02
11. For altering and modifying, during the month of November, 1904, the system of operating electrical devices for opening and closing the valves		91.20
12. For labor and material furnished between October 1, 1903, and January 1, 1904, in supplying and installing electric wiring, in addition to and different from that required by the aforesaid contracts		3,833.96
Total		10,638.07

Wherefore your petitioner claims that an obligation arose upon the part of the defendant to pay to it the sum of ten thousand six hundred and thirty-eight dollars and seven cents ($10,638.07), the fair and reasonable value of the work and material above itemized; but your petitioner says that no payment has ever been made to it by the defendant for or on account of any of said items, and it is justly entitled to recover of the United States the total amount thereof, to wit, the sum of ten thousand six hundred and thirty-eight dollars and seven cents ($10,638.07).

VIII. Your petitioner further avers that during the progress of said work upon said pumping plant the officers and agents of the defendant in charge and control thereof, in addition to the work and materials called for by the aforesaid contracts, ordered and required your petitioner to furnish the following work and materials in order to make certain repairs and alterations in and additions to said pumping plant which were not specified in or contemplated by
8 the aforesaid contracts and the plans and specifications forming a part thereof, but were made necessary by and grew out of delays resulting from changes and modifications in the design and location of said plant and by changes and alterations in the work and materials which this petitioner was called upon to furnish under the aforesaid contracts, and this petitioner was thereby subjected to great loss and damage in the following particulars, to wit:

1. For labor and material furnished during the months of October and November, 1904, to repair the volute of drainage pipe No. 1, which burst as the result of excessive pressure which the officers and agents of the defendant had allowed to accumulate in the water-supply system of the navy yard, to which your petitioner had been ordered to connect its priming system		$385.00
2. For furnishing labor and materials on or about October 7, 1904, for a reducing valve to be placed in position in the priming system to prevent a recurrence of the break last above mentioned		32.72
3. For furnishing, on or about November 11, 1904, labor and materials to repair elbow on drainage pipe No. 2, broken on that day as the result of excessive pressure in the priming system, caused as described in item 1 above		282.25
4. For furnishing labor and material on or about February 3, 1905, for a new valve and suction pipe in Dry Dock No. 3, which was cracked by the freezing of water in Dry Dock No. 3, which had been flooded by the officers and agents of the defendant in charge thereof without notice to petitioner		604.00
5. For labor and material furnished in and about May, 1904, to repair and restore the pumps and pump shafts, which had become rusted and damaged while waiting for the electrical machinery to be placed in position, the installation of which was delayed by the officers and agents of the defendant in charge of said work		1,560.87
9 6. Cost of insurance upon the electrical machinery stored in the yard during the aforesaid period of delay		217.80
7. Expenses of erector of electrical machinery in coming from Cincinnati, Ohio, to New York City to install the same, which installation was postponed by delays caused by the officers and agents of the defendant in charge of said work	$104.66	
Repairing motor to keep pump well free from water while awaiting the decision of the officers and agents of the defendant in charge of said work in regard to repairing the bottom of the pumping station	110.15	
Cost of renovating and restoring electrical apparatus after it had become rusted and damaged by the long period of storage in the yard, caused by the delay in the work, occasioned by the officers and agents of the defendant in charge of said work	3,841.98	
		4,056.79
8. Cost of extra superintendence and for watchmen and for materials and supplies required to keep the pump pit clear of water during the long period of delay aforesaid and during the installation of the electrical machinery, which was retarded by the frequent docking of vessels		9,182.66
Total		16,322.09

And your petitioner charges that the defendant has received the benefit of all of said repairs, alterations, and additions and was and is solely responsible for all the damages and additional ex-
10 penses to which this petitioner was subjected, as above itemized, whereby and by reason whereof an obligation arose upon the part of the defendant to pay to it the reasonable value of said repairs, alterations, and additions, and to reimburse said petitioner for its said damages and additional expenses; but your petitioner says that no payment has ever been made to it by the defendant for or on account of any of said items and it is justly entitled to recover of the United States the total amount thereof, to wit, the sum of sixteen thousand three hundred and twenty-two dollars and nine cents ($16,322.09).

IX. Your petitioner says that no assignment or transfer of its aforesaid claim or any part thereof or interest therein has ever been made, and your petitioner is entitled to the several amounts above stated after allowance of all just credits and off-sets.

Wherefore your petitioner prays judgment against the United States for the total sum of thirty-two thousand nine hundred and sixty dollars and sixteen cents ($32,960.16).

THE UNITED ENGINEERING AND CONTRACTING COMPANY,
By DAVID L. HOUGH, *President.*

[Seal The United Engineering and Contracting Company, city of New York, 1899.]

Attest:

FREDERICK WOOLEY,
Secretary.

STATE OF NEW YORK, *City of New York, ss:*

I, David L. Hough, being first duly sworn, do depose and say that I am the president of the United Engineering and Contracting Company, a corporation, which corporation is named as party claimant in the foregoing petition. I have read the said petition and know the contents thereof, and the facts therein stated are true to the best of my knowledge, information, and belief.

DAVID L. HOUGH.

11 Subscribed and sworn to before me this 27th day of November, A. D. 1907.

E. S. RUE,
Notary Public, 163, N. Y. County.

[Seal E. S. Rue, Notary Public, New York County.]

McKENNEY & FLANNERY,
Hibbs Building, Washington, D. C.,
Attorneys for Claimant.

(Endorsed:) Original. In the Court of Claims of the United States. No. 30072. The United Engineering and Contracting Company, claimant, vs. The United States. Petition. The clerk will

please file. Filed Dec. 9, 1907. Court of Claims. Law offices of Wayne MacVeagh, Frederic D. McKenney, John Spalding Flannery, William Hitz, Hibbs Building, 723 Fifteenth St. NW., Washington, D. C.

MEM.

The motion of claimant's attorneys for leave to omit exhibits from printed petition filed Dec. 10, 1907, was allowed Dec. 13, 1907.

BY THE COURT.

J. RANDOLPH,
Ass't C. C. C.

12

13 II.—*Appendix to Claimant's Petition.*

Filed Dec. 9, 1907.

CLAIMANT'S EXHIBIT A.

Contract No. 876, dated September 15, 1900, between the United Engineering & Contracting Co. and the United States, by the Chief of the Bureau of Yards and Docks, Navy Department, for pumping plant for Dry Dock No. 3, at New York Yard.

Filed December 9, 1907, Court of Claims.

Contract No. 876.

This contract, made and concluded at Washington, D. C., this fifteenth day of September, A. D. 1900, by and between the United Engineering and Contracting Company, a corporation of New York, with offices at 13–21 Park Row, New York, N. Y., acting for

14 itself, its successors, and legal representatives, party of the first part, and the United States, by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, party of the second part.

Witnesseth, That for and in consideration of the payments hereinafter specified the party of the first part hereby covenants and agrees to and with the party of the second part as follows, viz:

First. That the said party of the first part will provide, furnish, and deliver, at its own risk and expense, at the United States Navy Yard, New York, N. Y., all the necessary materials, labor, tools, and appliances for the construction and completion, in all respects, of a pumping plant for dry dock numbered three (3) at said navy yard, and will construct and completely install the same within seven calendar months from the date of this contract, in strict accordance with, and subject to, all the conditions and requirements of the plans and specifications appended hereto and forming a part of this con-

tract, for the sum of seventy-nine thousand four hundred and thirty-five dollars ($79,435.00).

Second. The party of the first part further covenants and agrees to forever protect and defend the party of the second part in the full and free use and enjoyment of any and all rights to any invention, machine, or device which may be applied as a part of the work herein specified and contracted for, either in its construction or use after completion, against the demands of all persons whomsoever.

Third. The party of the first part further agrees that if during the progress of the work it shall be deemed, by the party of the second part, necessary or desirable to make any changes or modifications in the said plans and specifications, affecting the cost of the work to be done hereunder, said changes or modifications, and the amount of the increased or diminished compensation to be paid the party of the first part in consequence thereof, shall be
15 stipulated and agreed to in writing by the parties to the contract before the work contemplated by such changes or modifications is begun; and such increased or diminished compensation shall, when exceeding $300, be assessed by a board of naval officers appointed for the purpose, and shall be based upon the actual cost.

And this contract further witnesseth,

Fourth. That the party of the second part, for and in consideration of the foregoing, and for and in consideration of the faithful performance of this contract by the party of the first part, duly certified to by the inspecting officer appointed for that purpose, and the acceptance of the work as satisfactory on the part of the United States, do hereby covenant and agree, to and with the party of the first part, that there shall be paid to the said party of the first part, for the full and entire completion of the said pumping plant, the sum of seventy-nine thousand four hundred and thirty-five dollars ($79,435.00), upon approved bills certified and drawn in the usual manner, and payable through such navy pay office as the party of the first part may elect, within ten days after warrants for the same shall have been passed by the Secretary of the Treasury, in the following manner, viz., as provided in paragraph twenty-nine (29) of the specifications aforesaid.

Fifth. It is mutually understood and agreed that no payment or allowance to said party of the first part will or shall be made by the United States for or on account of this contract, except those payments herein specified, and that, when not otherwise specifically provided, ten per cent will be withheld from the amount of each of such payments as security for the full completion and performance of the covenants and agreements hereof by the said party of the first part, and that the final payment made hereunder shall include the amounts so withheld.

Sixth. It is further mutually and expressly covenanted and
16 agreed, and this contract is upon the express condition that no Member of or Delegate to Congress, nor any officer of the

United States, naval, military, or civil, is, or shall be, admitted to any share or part of this contract or to any benefit to arise therefrom; that any transfer of this contract, or of any interest therein, to any person or party by the said party of the first part, shall annul this contract so far as the United States are concerned; that if said party of the first part shall fail or neglect in any respect to perform this contract or any part thereof as provided, it may at the option of the United States be declared null and void, without prejudice to the right of the United States to recover for defaults herein, or violations hereof, and for such default the United States may demand and recover of said party of the first part, as liquidated damages, a sum of money equal to the penalty of the bond attached to and forming a part of this contract.

In witness whereof the said parties hereto have hereunto set their hands and seals the day and year first above written.

THE UNITED ENGINEERING AND CONTRACTING COMPANY,
D. L. HOUGH, *President.*

[Seal The United Engineering and Contracting Company, city of New York, 1899.]

Attest:
F. WOOLEY, *Ass't Sec.*

THE UNITED STATES,
By MORDECAI T. ENDICOTT,
Chief of Bureau of Yards and Docks,
Acting under the direction of the Secretary of the Navy.

Signed and sealed in the presence of—
WM. M. SMITH,
As to M. T. E.

17 (Copy.)

H. Y. D.

The United Engineering & Contracting Company, Consulting & Contracting Engineers, 13–21 Park Row.

NEW YORK, *September 7th, 1900.*

Admiral MORDECAI T. ENDICOTT,
Chief of Bureau of Yards and Docks,
Navy Department, Washington, D. C.

SIR: We have the honor to refer to our proposal, made this day, for providing and installing a pumping plant for Dry Dock No. 3 at the navy yard, New York, and to refer especially to paragraph No. 69 of that specification, under the terms of which we would say:

We propose to attain the end sought for by the method outlined in a letter which we are informed is submitted to you by the General Electric Company, or by the use of some modification of such method as may be developed to be of equal or better service (in ac-

cordance with the views of your bureau during the designing and construction of the apparatus which we furnish), should we be awarded the contract.

Very respectfully, your obedient servants,

THE UNITED ENGINEERING & CONTRACTING CO.,
D. L. HOUGH, *President*.

Sealed proposals endorsed "Proposals for pumping plant" will be received at the Bureau of Yards and Docks, Navy Department, Washington, until 1 o'clock September 8, 1900, and then and there publicly opened, for providing and installing a pumping plant for Dry Dock No. 3 at the navy yard, New York. For plans, specifications, and forms of proposal address "Commandant, Navy Yard, New York."

MORDECAI T. ENDICOTT,
Chief of Bureau.

August 9, 1900.

18 Specification No. 1087, for a pumping plant for Dry Dock No. 3 at the United States navy yard, New York, under appropriation "Navy yard, Brooklyn, N. Y., pumping plant, Dry Dock No. 3.

Act approved June 7, 1900.

General conditions.

1. Intention.—It is the declared and acknowledged intention and meaning to provide and secure a complete and substantial pumping plant, according to the general plans and specification, to the entire satisfaction of the Chief of the Bureau of Yards and Docks and the civil engineer in charge. Any details omitted from either plans or specification, or from both, the performance of which is necessary to the construction, of which the civil engineer in charge shall be the judge, shall be supplied by the contractor as though fully described and shown, and without additional expense to the Government.

2. Contract.—The contract to cover the work to be done will be based upon this specification, which will be attached to and form a part thereof.

3. Omissions and misdescriptions.—The omission from the contract, or from the plans, specification, or other papers attached thereto and forming a part thereof, or the misdescription of any details of work, the proper performance of which is necessary to fully carry out the intention above expressed, shall not operate to release the contractor from performing such work, but the same shall be fully and properly performed in the same manner as though fully and correctly shown, described, and required in and by the contract, and without expense to the United States in addition to the contract price.

4. Discrepancies.—Should any discrepancy exist between plans and specification, or any parts of either, or should the language of any part of the contract be ambiguous or doubtful, the civil engineer or other officer or agent of the United States in charge of the work shall decide as to the true intent and meaning, subject only to appeal to the Chief of the Bureau of Yards and Docks.

5. Control of work.—The United States, by its officer in charge of the work or other authorized representative, shall at all times have full control and direction of all work under the contract, and all questions, disputes, or differences as to any part or detail thereof shall be decided by such officer or representative, subject only to appeal to the Chief of the Bureau of Yards and Docks.

6. Facilities.—The contractor will be allowed reasonable space at the site of the work and access to the same for receiving, handling, storing, and working material, but he shall confine both employees and material to the space assigned. Upon the completion of the work, and before final payment on account of the same, the contractor shall remove all of his surplus material, machinery, tools, etc., from the naval station.

7. Employees.—The contractor shall employ only competent, careful, orderly persons upon the work, and if, at any time, it shall appear to the officer in charge that any person employed upon the work is incompetent, careless, reckless, or disorderly, or disobeys or evades orders or instructions, or shirks his duty, such person shall be immediately discharged from and not again employed upon the work.

8. Time of commencement of work.—The contractor shall commence work immediately after the execution of the contract and continue without interruption, unless otherwise directed by the United States by its officer in charge of the work or other authorized representative, or otherwise hereinafter provided.

9. Delays and suspensions.—The United States reserves the right to reasonably delay the commencement of the work, and to suspend operations at any time and for any period. Should such delay or suspension cause a change in the cost of the work, such change shall be determined as provided in paragraph 17 of this specification.

10. Time of completion.—The entire work shall be completed in every respect and particular within seven calendar months from the date of the contract.

11. Extension of time.—Extensions of time for the completion of the work can only be allowed and made, in writing, by the Chief of the Bureau of Yards and Docks. Any and every extension of time must be specifically made and shall not be implied from any cause under any circumstances.

12. Damages for delay.—In case the work is not completed within the time specified in the contract, or the time allowed by the Chief of the Bureau of Yards and Docks under paragraph 11 of this speci-

fication, it is distinctly understood and agreed that deductions at the rate of $25 per day shall be made from the contract price for each and every calendar day after and exclusive of the date within which completion was required up to and including the date of completion and acceptance of the work, said sum being specifically agreed upon as the measure of damage to the United States by reason of delay in the completion of the work; and the contractor shall agree and consent that the contract price, reduced by the aggregate of damages so deducted, shall be accepted in full satisfaction for all work done under the contract.

13. Unavoidable delays.—Unavoidable delays are such as result from causes which are undoubtedly, or may reasonably be presumed to be, beyond the control of the contractor, such as acts of Providence, unusual storms, fires (not the result of negligence), fortuitous events, inevitable accidents, etc. Should the progress of the work be, or seem likely to be, delayed at any time by such causes, the contractor shall at once notify the officer in charge, in writing, of the occur-
21 rence, in order that a record of the same may be made. Should it be decided that the delay was unavoidable, a corresponding extension of time for the completion of the work may be allowed, but it is distinctly understood that should the contractor fail or neglect to notify the officer in charge as above provided, such omission shall be construed as a waiver of all claim and right to an extension of time for the completion of the work on account of such delay.

14. Avoidable delays.—Avoidable delays are such as result from causes which the contractor might, by care, prudence, or foresight, have guarded against or prevented. Should the progress of the work be delayed at any time by such causes, the contractor distinctly and specifically agrees and consents that the amount of any and every expense to the United States, caused by such delay, may be deducted and withheld from any payment due or becoming due to him on account of the work, and that the contract price, reduced by such amount, shall be accepted by him as full compensation for the work done under the contract.

15. Progress of work.—If at any time the progress of the work shall, in the opinion of the officer in charge, appear to have been such as to indicate that the work is not likely to be completed within the time allowed, he shall report such opinion to the Chief of the Bureau of Yards and Docks, who may, in his discretion, declare the contract null and void, without prejudice to the right of the United States to recover for defaults or violations thereof.

16. Annulment of contract.—Should the contract for any reason be declared null and void, the contractor shall thereupon become indebted to the United States as for ascertained and liquidated damages in a sum equal to the aggregate of all payments made to him on account of the contract, and undertakes and promises to refund the same to the United States on demand. And the contractor shall further agree that the United States may hold all material delivered and work done under the contract and all machinery, tools, ap-

22 pliances, etc., upon the site of the work or used in connection therewith pending the completion of the work covered by the contract. Upon the annulment of the contract, a board of officers, or other representatives of the United States, shall be appointed, which shall ascertain and determine the value of all material delivered and work done, including a fair and reasonable margin of profit thereon, and upon the approval of the findings of said board by the Chief of the Bureau of Yards and Docks, he may proceed to complete the work according to the contract in such manner and by such means as he may deem advisable, and may, in his discretion, use or employ any material, tools, machinery, appliances, etc., belonging to or furnished by the contractor for use in connection with the work covered by the contract. Upon the completion of the work, should the total cost thereof exceed the contract price, the difference shall be charged to the contractor who undertakes and promises to pay the same upon demand; and the contractor shall be entitled to receive the amount found due by the board above mentioned, including any 10 per cent reservation from payments previously made, but no allowance shall be made for profit which the contractor might have made by completing the work, nor for any excess of the contract price over the total cost of the work.

17. Changes.—The United States reserves the right to make such reasonable changes in the contract, plan, or specification as may be deemed necessary or advisable by the Chief of the Bureau of Yards and Docks. Should any change in the contract, plans, or specification affect the cost of the work, the amount of the increase or decrease in cost shall be estimated by the officer in charge, and, if estimated to be more than $300, shall be determined by a board of not less than three officers to be appointed under the direction of the Chief of the Bureau of Yards and Docks; and the contractor shall agree and consent that the contract price, increased or decreased by the amount of the increase or decrease in cost caused by
23 any change, estimated or determined as specified, shall be accepted in full satisfaction for all work done under the contract: Provided, however, That any changes to be made shall, before being made, be stipulated and agreed to, in writing, by the parties to the contract.

18. Extras.—The contract price shall cover all expenses, of whatever nature or description, connected with the work to be done under the contract. No allowance whatever will be made for additional or extra work or material except under the provisions of paragraph 17 of this specification.

19. Patents.—The contractor shall forever protect and defend the United States in the full and free use and enjoyment of any and all rights to any invention, machine, or device which may be applied as a part of the work, either in its construction or use after completion, against the demands of all persons whomsoever.

20. Contractor's responsibility.—The contractor shall be responsible for the entire work and every part thereof, and for all tools,

appliances, and property of every description used in connection therewith. He shall specifically and distinctly assume all risks of damage or injury from any cause to property or persons used or employed on or in connection with the work, and of all damage or injury to any person or property, wherever located, resulting from any action or operation under the contract or in connection with the work, and undertakes and promises to protect and defend the United States against all claims on account of any such damage or injury.

21. Contractor's supervision.—The contractor shall give his personal attention to the work at all times, and shall be present, either in person or by a duly authorized representative, on the site of the work continually during its progress, to receive directions or instructions from the officer in charge.

22. Verbal modifications.—It is distinctly understood that no verbal statement of any person whomsoever shall be allowed in any manner or degree to modify or otherwise affect the terms of this specification or of the contract for the work. Changes shall be made only and strictly acording to paragraph 17 of this specification.

SPECIAL CONDITIONS.

23. Description and location.—The work to be done will consist of the erection, complete, ready for operation, of a pumping plant for Dry Dock No. 3, New York Navy Yard, and will include the construction of a well or chamber of the dimensions shown, located near the entrance of the dock; all necessary machinery as provided herein, including pumps, motors, piping, and connections, as shown on the plan. The chamber under the ends of the suction pipes must be sufficiently enlarged to admit of water flowing freely to the pipes, both old and new.

24. Work.—The contractor must furnish all engineering skill, all labor, skilled and common, all tools, machines, and materials to construct the same, and all labor, tools, and material required to make trials of the efficiency and sufficiency of any and all parts of the work, on completion. The entire work is to be carried on and completed in each and every detail in the most thorough, substantial, and workmanlike manner, according to the full intent and meaning of this specification and accompanying plans, to the entire satisfaction, approval, and acceptance of the civil engineer in charge, and of the Bureau of Yards and Docks.

25. Inspection.—The Government shall at all times, by the civil engineer in charge, have full and free access to the work in progress for the purpose of inspection, and all the work and material described in this specification and shown on the plans shall be executed to his entire satisfaction. All orders for material or finished work shall be endorsed "Inspection by Bureau of Yards and Docks, Navy Department." The contractor or his agent shall promptly notify

the civil engineer in charge and the Chief of the Bureau of
25 Yards and Docks of the placing and location of orders for material or finished work, and shall, at the time of placing such orders, forward to the bureau three copies of the same, and also three sets of all working drawings or other matter pertaining to the work.

26. Inspection at mills and shops.—The contractor or his agent shall promptly notify the Bureau of Yards and Docks, or its authorized representatives, of the manufacture of materials in mills or finished work in shops, and of the readiness of the same for inspection and test. The bureau's inspectors shall be furnished by the contractor or his agents with copies of all orders, manifests, plans, or other data required by them for the complete inspection of material or finished work and shall be given every facility for inspecting all material and workmanship and all processes and operations affecting the material without additional charge. The acceptance of material and workmanship is provisional on its compliance with the specification and plans; and should any material or workmanship prove defective at any time before final acceptance, it shall be rejected and at once replaced in a satisfactory manner by the contractor without additional cost.

27. Inspection during erection.—During the work of reception and erection the civil engineer in charge shall have authority to cause any inferior or unsafe work to be taken down and altered at the contractor's expense; and it is distinctly understood that the civil engineer in charge shall have full power to reject any material he may deem unsuitable for the purpose intended or which is not in strict conformity to this specification.

28. Schedule of prices.—After signing the contract, and before the first payment is due, the contractor will submit to the civil engineer in charge for approval a schedule of prices for material worked into place.

29. Payments.—At the end of each month the civil engineer
26 in charge will make an estimate of the amount of work done under this specification during that month, based upon the approved schedule of prices. A voucher for this estimate will be submitted to the commandant for his approval, and after the approval of the Chief of the Bureau of Yards and Docks the contractor will be paid the amount of the voucher, less 10 per cent reserved until the completion and acceptance of the plant. Before any payment is made the contractor shall furnish satisfactory insurance on the material for which payment is desired, with loss, if any, payable to the Chief of the Bureau of Yards and Docks for the United States.

DATA.

30. Drawings.—The general design and details of construction are shown upon the plans which accompany this specification and are to be considered a part of it. Before any work is done, the con-

tractor must furnish accurate drawings of all shop work and all details not here included. These must be approved, in writing, by the civil engineer in charge. Approval of drawings will be of a general nature and will not relieve the contractor from the responsibility for errors or omissions that may occur therein, which shall be remedied and made good whenever discovered. These plans submitted must show all details of steel and iron work, glass construction, brick, cement, etc., and when approved are to be considered an integral part of this specification. The contractor must furnish one full set of drawings upon tracing linen, the same to be retained in the office of the civil engineer at the New York Navy Yard, and as many prints of these drawings as may be required in the course of the work. Suggestions as to acceptable details can be obtained at the office of the civil engineer at the New York Navy Yard. Should a conflict exist between the plans and specification, the civil engineer in charge shall be the judge as to the true intent and meaning, subject to appeal to the Chief of the Bureau of Yards and Docks.

27 31. Grades and lines.—All necessary grades and lines will be furnished by the civil engineer in charge, to enable the contractor definitely to locate the position and elevation of his structures, but he must furnish the required engineering skill to properly erect them. No work will be begun until the civil engineer in charge has definitely located all necessary points, but thereafter the contractor will be held responsible for them. Should any such be disturbed through carelessness, the cost of replacing the same will be charged against the contractor and be deducted from any money found due at final settlement.

MATERIAL.

32. Round piles.—All piles are to be of spruce, at least 6 inches in diameter, exclusive of the bark, at the point; 12 inches, exclusive of the bark, 3 feet from the butt, and of sufficient length to show a final penetration not exceeding 1 inch under the last blow of a 3,000-pound hammer falling 15 feet. The piles must be entirely satisfactory to the civil engineer in charge.

33. Sheet piles.—Sheet piles are to be of long-leaf yellow pine, sound, free from all knots, except small sound knots, 6 feet from butt or driving end, which will be allowed; free from dope or soft spots and injurious shakes. Piles are to be beveled on contact sides to suit the radius of curvature; the piles shall be driven until a satisfactory depth shall have been reached, in the opinion of the civil engineer in charge, said depth, however, not to be less than 40 feet.

34. Sand.—All sand must be clean and sharp, of uniform texture, free from sewage, mud, clay, mica, paper, leaves, chips, and all other foreign matter, and not show, when shaken with water and after subsidence, more than 5 per cent, by volume, of silt. It must be specially freed from such material by screening and washing, if so ordered by the civil engineer in charge, and must be entirely satisfactory to him.

28 35. Gravel.—All gravel must be clean, sea-washed, silica gravel of best quality. It must not contain pebbles larger than 2 inches in greatest dimension, and none of it shall pass a screen having 100 meshes per square inch. It must be specially freed from all foreign material by screening and washing, if so ordered by the civil engineer in charge. The gravel must be entirely satisfactory to him.

36. Broken stone.—All broken stone used must be of granite, hard gneiss, or other material proved to be of good quality and acceptable to the civil engineer in charge. It must be of such size as to pass through a ring 2 inches in diameter and be held upon a ring one-half inch in diameter. It must consist of angular fragments of stone, and must be specially freed from all foreign materials by screening and washing, if so ordered by the civil engineer in charge.

37. Water.—All water used shall be fresh and clean, free from earth, dirt, or sewage, and shall be used in such quantity as the civil engineer in charge may direct.

38. Cement.—All cement used will be tested by the Government as soon as delivered, and only such will be accepted as conforms to the following specification: Except where otherwise specified, it must be the best grade slow-setting Portland cement, showing no change of volume in setting, and no warping, checking, or cracking of edges or surface. Neat briquettes must develop a tensile strength per square inch of 200 pounds in twenty-four hours and 550 pounds in seven days. The cement must be delivered long enough before time for use to allow of the required tests being made and acceptable cement provided should the first prove unsatisfactory. It must be packed in strong, well-coopered barrels, lined with moisture-proof paper, weighing at least 400 pounds, or in strong, cotton-duck bags holding one-fourth or one-third of a barrel by weight. The contractor must give a certificate from the manufacturers to the effect that the cement has been seasoned for at least thirty days before leaving the works.

29 39. Concrete.—All concrete must be made of cement, acceptable sand, and acceptable gravel or broken stone. The ingredients must be measured by volume in the condition ordinarily handled. These ingredients must be mixed in such proportions that the cement exceeds the voids in the sand about 25 per cent and the dry mixture of cement and sand exceeds the voids in the gravel or broken stone about 25 per cent. These proportions will be determined for the given articles of sand and gravel or stone used, and the proper proportions for use made known. With the materials commonly employed at the navy yard, New York, these proportions are about 1 to 2 to 5. The methods of mixing and placing the concrete must be acceptable to the civil engineer in charge, and will be constantly subject to inspection and change if found unsatisfactory. All unsatisfactory work must be removed and replaced by the contractor.

40. Bricks.—All bricks used will be best quality selected red, well and evenly burned, of uniform color and size. They must not absorb more than 10 per cent by weight of water.

41. Mortar.—All mortar used must be mixed of sand and cement in the proportions ordered by the civil engineer in charge, depending upon the character of the work. No cement mortar must be used after it has begun to set.

42. Glass.—All window glass used is to be first-quality double-thick American glass, free from irregularities and blisters, clear and true. Skylight glass must be ¼-inch ribbed glass, uniform and true.

43. Galvanized iron.—All galvanized iron used must be of the gauge shown upon the drawings. The black plate must be of soft open-hearth steel, and each sheet must be evenly and thoroughly coated, showing no imperfect or uncoated spots. Each sheet, in whatever shape or position, must be thoroughly fastened to its supports, to the entire satisfaction of the civil engineer in charge.

30 44. Builders' hardware.—Builders' hardware and fittings will be of first-quality bronze and satisfactory to the civil engineer in charge, to whom samples must be submitted before such articles are used.

45. Steel.—All structural steel will be made by the open-hearth or Bessemer process with not more than five one-hundredths of one per cent of phosphorus for basic steel, and not more than one-tenth of one per cent of phosphorus for acid steel.

46. All tests and inspection of steel will be made by a Government inspector at the place of manufacture before shipment. Every piece will bear the inspector's mark.

47. The tensile strength, limit of elasticity, and ductility shall be determined from standard test pieces, cut in the presence of the inspector from the finished material of each heat, and planed, milled, or turned parallel, and have a cross section of at least one-half square inch; and the elongation shall be measured upon an original length of 8 inches, except when the thickness of finished material is five-sixteenths of an inch or less, in which case the elongation shall be measured in a length equal to sixteen times the thickness. Two test pieces shall be taken from each blow, one for tension and one for bending.

48. Finished bars, plates, and shapes must be free from injuries, seams, flaws, or cracks, and have a workmanlike finish. A variation in weight or cross section of more than 2½ per cent from that specified will be sufficient cause for rejection.

49. The structural steel used (except for rivets) shall have an ultimate tensile strength of from 55,000 to 65,000 pounds per square inch; an elastic limit of one-half the ultimate strength, and a minimum elongation of 23 per cent in 8 inches, and must stand bending 180 degrees without sign of fracture, to a curve, the inner radius of which equals the thickness of the piece tested, both cold and after being heated to a cherry-red color, and then quenched in water of 60° F., and have a reduction in area of not less than 40 per cent at the point of fracture.

31 50. All rivets must be of steel having an ultimate tensile strength of 52,000 to 62,000 pounds per square inch, an elastic

limit of not less than 30,000 pounds per square inch, an elongation of not less than 25 per cent in 8 inches, with a reduction of area of not less than 50 per cent at point of fracture. It must stand bending 180 degrees and close flat upon itself without sign of fracture. Specimens must stand cold hammering to one-third the original thickness without flaying or cracking.

51. Rods in tension must have threaded ends upset, so that the diameter at the base of thread will be greater than that of the bar before upsetting.

52. The workmanship must be first class in every respect. Rivets must completely fill holes, have full heads of approved form, concentric with rivet, and in full contact with the surface. The rivet hole will not exceed the diameter of the rivet more than one-sixteenth of an inch. All holes must be clean-cut, without torn or ragged edges, or fracture of material. Rivet holes must be accurately spaced in order that the several members will come together without the use of driftpins, which will not be allowed for the purpose of bringing parts together when the holes are inaccurately punched. Where holes do not perfectly match they will be made to match by reaming, in which case a rivet of a larger diameter will be used. Built members when finished must be true and free from twists, kinks, buckles, or open joints between component pieces. All abutting surfaces of compression members must be planed or turned to even bearings so that they shall be in such contact throughout as may be obtained by such means. All field connections must be made by rivets.

53. Paint.—All steel work, immediately on completion and before exposure to the weather, shall be cleaned from all mill scale, rust, grease, dirt, and foreign matter by scraping, hammering, and brushing
32 with wire brushes, and to the satisfaction of the officer in charge, and given one coat of pure red lead in pure raw linseed oil, freshly mixed before application, in the proportion of 25 pounds of lead to 1 gallon of oil. Contact surfaces shall be cleaned as above and each shall receive one coat of the above mixture of lead and oil before assembling. After the steel work is erected, all surfaces that will be covered by walls or floors shall receive a thick coat of pure asphaltum, applied hot. All other surfaces of steel work, not otherwise specified, shall receive two coats of Dixon's silica graphite paint No. 2 delivered at the building site in original packages and applied without addition of other materials, or a paint composed of graphite, pure linseed oil, and driers in proportions to make a paint equal in quality thereto and approved by the civil engineer in charge. All exposed steel shall receive two coats of pure white lead in linseed oil, tinted as directed. All surfaces of architectural iron requiring the same, in the opinion of the civil engineer in charge, shall receive two coats of approved paint after erection.

54. Protection of material.—All material used in the construction must be delivered upon the ground in a condition for thorough inspection. It must be properly protected from the weather and from injury, to the satisfaction of the civil engineer in charge. Any

injured material must be immediately removed and replaced with satisfactory material.

PUMPING PLANT.

55. The general arrangement of machinery and appliances constituting the pumping plant are shown on the accompanying plan. Slight variations due to details of machinery accepted may be made by the civil engineer in charge.

56. Pump well.—There will be a continuous row of tongued and grooved sheet piling completely surrounding the pump well.
33 These piles must be driven between guide wales, cut to proper curvature, and properly bolted to a sufficient number of guide piles. Bearing piles must be driven in the location shown, properly cut off, and covered with concrete, forming the bottom of the pump well. Upon this foundation must be constructed the brick wall in the manner shown. The outside of the wall must be thoroughly plastered with cement mortar and the space between the wall and sheet piling filled with clay puddle, so placed as to be impervious to water. The inside courses of the wall must be laid in properly colored mortar and have two coats of linseed oil applied. The pump house will be floored over with steel girders, beams, and concrete arches; the concrete filling over arches will extend above the floor beams 3 inches, well rammed and troweled. Over this concrete deck will be laid, in the very best manner known to the trade, a 1-inch coating of Kosmocrete or granolithic covering. The concrete floor in the pump house will be overlaid with a 1-inch coating of Kosmocrete. A waterproof ventilator is to be installed as shown. An entrance house of steel frame with corrugated galvanized steel covering will be constructed in the very best manner and of the very best material and workmanship, as shown on the plan. Two steel channels will form the stair stringers, and 12-inch channels will form the treads for the stairway. Treads are to be secured with three rivets at each end to 3 by $2\frac{1}{2}$ by $\frac{5}{16}$ inch angle clips. A galvanized iron railing will be put up around stair well hole and on the outside of the stairway; well fastened.

57. Pumps.—The capacity of the pumping plant operating at its average safe efficiency shall not be less than 150,000 gallons per minute.

58. There will be three main pumps of the vertical centrifugal type, directly connected to three independent electric motors by suitable couplings. Each pump shall have an average capacity of not less than 50,000 gallons per minute, and shall be of a nominal size of not less than 42 inches.

59. The pumps shall have balanced suction pipes, and the
34 pump cases shall not be less than $1\frac{1}{4}$ inches thick, suitably ribbed and braced and pointed in such manner as to admit of easy erection and taking down for examination and repairs. The shafts shall be of forged steel, fitted with proper high-speed bearings

and stuffing boxes. The suction elbows are to be made in halves, to provide for removal in case repairs are necessary. The suction and discharge pipes shall be made of steel plates not less than one-half inch in thickness, and the discharge pipe shall be of not less than 45 inches internal diameter. All piping shall be fitted with suitable gate valves located inside the pump-house wall where directed. The valves shall have double gates fitted with bronze faces and seats, and with bronzed fitted stems and stuffing boxes, made to operate hydraulically and by hand power.

60. There will be one drainage pump of the vertical centrifugal type direct connected to an independent electric motor by a suitable coupling. It shall have an average capacity of not less than 6,000 gallons per minute.

61. The drainage pump shall have balanced suction pipes, and the pump case shall not be less than three-fourths of an inch thick, suitably ribbed, braced, and jointed in such manner as to admit of easy erection and taking down for examination and repairs. The suction and discharge pipes shall be made of steel plates not less than three-eights of an inch thick, and the discharge pipe shall not be less than 16 inches internal diameter. The drainage pump and piping shall be fitted and equipped in a similar and corresponding manner to the main pumps and piping.

62. An auxiliary pump of a make and type approved by the civil engineer in charge and operated by an electric motor shall be installed in the pump well and arranged for draining the suction well, operating valves, and priming the centrifugal pumps with fresh and salt water from yard system and overboard, with valves, piping, etc.

63. The auxiliary pump shall have a maximum capacity of not less than 75 gallons per minute. Its discharge shall
35 connect with a main discharge pipe outside the gate valve, and all its connection pipes shall have suitable stop valves near the outlets. For the purpose of collecting drainage water a well, 3 feet in diameter and 2 feet 6 inches deep, will be formed in the bottom concrete; said well to be in the lowest part and to have a 3-inch plank covering over it.

64. Air pump.—A suitable air pump must be installed direct connected to a proper motor, for priming all pumps. The same must be approved by the civil engineer in charge.

65. Ventilating fan.—The contractor will furnish and put in place, as may be directed, an acceptable exhaust fan, direct connected to a proper motor, with all necessary piping for ventilating pump pit.

66. Motors.—The design, material, workmanship, and finish of all electrical machinery and appliances must be equal to the best quality of similar machinery and appliances made by the Westinghouse Electric and General Electric Manufacturing Companies.

67. Main pump motors are to be wound for a constant potential of 500 volts, direct current, to be of the open type, multipolar, with

a field coil for each magnetic pole. Field frame is to be cast in two parts, for ready separation in case of repairs. Field coils are to be interchangeable, and, if compound wound, series and shunt coils are to be separate. Armatures are to be built up of thin sheet steel and slotted for the coils. They must be well ventilated and perfectly balanced. Armature coils are to be bar-wound and are to be insulated in the most perfect manner possible in order to obtain a motor which will be proof against dampness. Armatures are to be two-circuit or cross connected, so that a brush can be removed for cleaning or inspection without disturbing the electrical balance. Commutators must be large so as to give a small potential difference between adjacent segments; they must have sufficient neck so that connections will be above the brush surface. Brushes are to be carbon and are
36 not to exceed in density 30 amperes per square inch. Brush holders are to be fitted with shunt connections or must clamp brush firmly. Brush holders of the reaction type will not be accepted. Commutation must be perfect without change in position of brushes from no load to 50 per cent overload. Bearings must be self-oiling and self-aligning. Insulation resistance must be not less than two megohms, and must stand a test of not less than 1,500 volts alternating current between windings and the frame. Motors must be able to operate for twenty-four hours continuously at full load without a rise in temperature of more than 40° C. in any part of machine above the surrounding air. Following the full load test, they must be able to run for two hours with 50 per cent overload without producing a rise of more than 55° C. in any part of the machine above the surrounding air. They shall be able to run for thirty seconds on a 75 per cent overload without injurious heating or sparking. Efficiency at full load must be not less than 91 per cent and at one-fourth load not less than 82 per cent.

68. A suitable and satisfactory switchboard, of 2-inch white marble, supported by angle and tee irons, supplied with circuit breakers, nonarcing lightning arresters, illuminated dial, Weston ampere and voltmeters, switches, lamp brackets, and all other necessary and desirable appliances, shall be installed and connected as directed by the civil engineer in charge. Electric power will be delivered at the switchboard by the Government, and all other connections must be made by the contractor.

69. The starting apparatus should be preferably in the shape of a street railway controller, with magnetic blow-out, and having resistance of iron and mica; all to be mounted conveniently with reference to the switchboard. The regulation of the motors to attain the speeds necessary for the economical operation of the pump at different heads is to be obtained by some method of field control or compound winding, or both together. A water rheostat, properly in-
37 stalled and connected, may be used as a starting and regulating device. The same must be equivalent to the controller and winding specified above. Bidders must present with their bid a de-

scription of the method they propose to use in attaining the end sought for, as well as full data in regard to capacity of pumps at different lifts and horsepower of motors at the various speeds and under the various conditions of lift.

70. The auxiliary apparatus shall be of a make and type satisfactory to the officer in charge. The general specifications for pump motors is to apply to auxiliary motors.

71. Discharge culvert.—The discharge culvert must be built of timber, supported on piles as shown. Each thickness of plank must be calked from the inside, 3-strand work, so as to make a water-tight job, and the connection of the culvert and the pump well and of the culvert and the face of the wing wall, where the culvert empties overboard, must be made water-tight. The pavement must be replaced above the discharge culvert in a satisfactory manner and all rubbish and dirt removed. During the construction of the culvert proper sheet piling must be employed and sufficient shoring done to prevent accident to neighboring land and structures upon same.

72. Suction pipes.—One new 42-inch suction pipe of ¾-inch steel plate with a flaring shoe and proper bends must be installed as shown. Sufficient piles must be driven to support this pipe, and cross braces and saddles put in place to hold the pipe in its proper position. All joints in this pipe must be calked inside and out and must be tested to 28 inches vacuum before acceptance. This pipe must be installed and connected up ready for use before the other pipes are disconnected. The present 16-inch suction pipe and two 42-inch pipes must be disconnected at the elbows shown, and new lengths of proper size and thickness put in place between the present straight pipes and the pumps to be installed by the contractor. This work of disconnecting and connecting up must not be done until after the pumps have been completely installed ready for work.
38 One pipe at a time, as the exigencies of the case will permit, must be disconnected and replaced, so that the dock is put out of commission during the shortest possible intervals of time.

73. Suction chamber.—The present suction chamber in the dry dock must be enlarged so as to provide room for the new suction pipe to be installed. The Government will not be liable for damage to the contractor's plant and work if it becomes necessary to flood the dock during this reconstruction. This will, however, not happen, except under the greatest exigencies, but the contractor must employ methods suitable and sufficient to protect himself and the adjacent property from accident. Sufficient excavation must be done to enlarge the chamber as shown, and proper sheet piles and bearing piles must be driven if required by the civil engineer in charge. The brick retaining walls and invert arches must be rebuilt as shown in a satisfactory manner. The contractor must do all necessary cutting of timber, piles, brick, concrete, etc., to accomplish the required result, and must supply and install sufficient wire screening, similar

to that at present in use, to cover the enlargement of opening in dock floor and abutment.

74. Crane track.—Sufficient piles must be driven where crane track crosses the line of the suction pipes and of the discharge culvert to properly support it. Foundation piers and box girders must be supplied and properly installed to carry the crane track across the discharge culvert, and proper cribbing and string pieces must be employed to carry the tracks over the suction pipe. This cribbing must be of sound creosoted yellow pine or of oak.

75. Test.—On completion of the plant, and before acceptance, a full duty test is to be made by the contractor under the supervision of the civil engineer in charge.

76. Alternate design.—Designs for this work, other than those herein specified, will be considered, but must be accompanied by fully detailed drawings and complete specifications covering the same. The attention of such bidders is called to paragraph No. 79 of this specification.

39 PROPOSALS.

77. Proposals.—Each proposal must be accompanied by a certified check, payable to the Chief of the Bureau of Yards and Docks, for the sum of $1,000, as a guaranty that the bidder will, within ten days after notice of the acceptance of his proposal, execute the required contract and give bond in a penal sum equal to 20 per cent of the contract price, conditioned for the faithful performance of the contract. No bond is required with the proposal.

78. Return of certified checks.—Checks of unsuccessful bidders will be returned to them immediately on the awarding of the contract. Check of the successful bidder will be returned to him immediately upon the execution of the contract.

79. Rejection of bids.—The Government reserves the right to reject any or all bids, to waive defects or informalities in bids, or to accept any bid, irrespective of price, as its interests may require.

80. Bids.—Bids must be itemized as follows:

Proposition No. 1: Pump well, house, machinery, piping, etc., complete, as per plans and specification.

Proposition No. 2: Pump well, machinery, and piping, furnished complete and installed, Government to furnish discharge culvert and install new suction pipe from shoe to first elbow.

Proposition No. 3: Pump well, house, machinery, discharge culvert of greater length, three entirely new 45-inch suction pipes, with shoes and 16-inch drainage pipe, installed complete, with entirely new suction chamber in dry dock, and increased work connected with crane tracks. The alternate location to be as shown upon the plans.

81. Information.—Further information can be obtained in the office of the civil engineer, navy yard, New York.

NAVY DEPARTMENT,
Bureau of Yards and Docks, July, 1900.

CLAIMANT'S EXHIBIT B.

Agreement No. 876–A.

This agreement made and concluded this twenty-first day of January, A. D. 1901, by and between the United Engineering and Contracting Company, a corporation of New York City, party of the first part, and the United States, by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, party of the second part.

Witnesseth, that whereas it has been deemed advisable to make certain changes and additions under the provision of the contract between the parties hereto, dated the fifteenth day of September, A. D. 1900, for a pumping plant for Dry Dock No. 3.

Now, therefore, in consideration of the premises and of the mutual covenant and agreement hereinafter stated, it is mutually covenanted and agreed as follows:

1st. The party of the first part shall change the location of pumping pit twenty-five (25) feet further inland and toward the head of the dock and shall enlarge the same from fifty-five (55) feet diameter outside of the sheet piling to sixty-six (66) feet outside diameter, the brick wall to be laid up to within one (1) inch of the sheet piling, and the one (1) inch space between the sheet piling and brick walls to be filled with hot asphalt as the work upon the wall progresses.

2d. The location of the discharge culvert shall be changed so as to pass outside of the incasing sheet piling of Dock No. 3, and out beyond the cofferdam sheet piling, discharging into the dock slip, as shown on the plan hereunto attached, making an increased length of the discharge culvert of one hundred and fifteen (115) feet, more or less, with necessary foundation piling, etc.

41 3d. The voltage of all electric motors for pumps and valves shall be changed from 500 to 220 volts, and all valves shall be operated by electric motors and hand power, instead of by hydraulic power, as required by the original contract.

4th. The main pump suction pipes for Dock No. 3 shall be changed from forty-two (42) inches diameter to forty-five (45) inches diameter, and be $\frac{1}{2}''$ thick and shall be put in place complete and independent of the old suction pipes that now lead to the pump house. The pipes will be fitted with bell-mouths, similar to pipes in Dock No. 2. The suction chamber in Dock No. 3 shall be enlarged and encased in sheet piling with sufficient bearing piles, brick vault, and concrete bottom, similar to the suction chambers now in Dock No. 3; the bottom of the suction chamber will be on the same level as the bottom in the chamber now in place. The brick walls and bottom to be connected with the old chamber and the present end wall in the old chamber will be removed so as to admit the free and full flow of water to either the new or old suction chamber; the new or en-

larged suction chamber will have a large opening for admission of water to the chamber in the side of the dock opposite the new chamber covered by wire grating similar to the opening opposite the old chamber, allowance in size being made for increased size of the new pumping plant. The suction pipes from the pump pit will be supported on piles and cross caps, as may be found necessary, well balanced and firmly chocked. After the suction pipes have been put in place the side of the dock shall be restored to its former condition and similar to the sides of the dock over the old suction pipes.

5th. The suction pipes for Dry Dock No. 2 shall be intersected at the point back of the concrete wall at Dry Dock No. 2, as shown on the plan hereunto attached, and conveyed on the same level to the pump pit for Dry Dock No. 3; the new pipe, turns, and bends will be of one-half (½) inch steel, and rest on the old cross cap piles of Dock No. 2, which will be cut off and capped with sound timber from the old cross caps at the proper level; on these caps the pipes will be properly chocked. The old and new suction pipes
42 at Dock No. 2 will be fitted with valves operated electrically, as shown on the plan. The Government will furnish two forty-five (45) inch valves, which will be installed and fitted with electric motors by the contractor; all other valves shown on the plan will be furnished and put in place by the party of the first part. Over and around the valves at Dry Dock No. 2 will be constructed concrete and brick chambers, with proper manholes at the top; these chambers must be water-tight and dry for the proper working and preservation of electric motors that operate the valves.

6th. The party of the first part shall change the castings on the pumps for Dry Dock No. 3 so as to properly connect the same with the suction pipes from Dry Dock No. 2, and shall furnish one additional sixteen (16) inch centrifugal pump with suction pipe from intersection with drainage pump suction pipe at Dry Dock No. 2, this pipe to be of three-eighths (⅜) inch steel. The two drainage pumps in pump pit to be connected with a by-pass pipe and valves in such manner that either dock can be pumped by either one of the drainage pumps, as shown on the plan herewith.

7th. The party of the first part to furnish all material and labor necessary to carry out a first-class and workmanlike manner all the changes and additions to the original contract, as above quoted; to do all necessary excavation and back fill and furnish in place, complete, a substantial pumping plant of capacity as specified, capable of pumping out and draining Dry Docks Nos. 2 & 3, as specified.

All the work shall be done in the most substantial and workmanlike manner and to the entire satisfaction of the civil engineer in charge of the work and the party of the second part.

8th. The contract time shall be extended six (6) calendar months in which to complete work under the original contract and this agreement.

9th. For and in consideration of the changes and increase in the pumping plant, as herein quoted, the party of the second part
43 shall pay unto the party of the first part the sum of forty-two thousand eight hundred and eighty-five (42,885) dollars as additional to the original contract price, payments to be made as originally specified.

Provided, further, that this agreement shall be held and regarded as and be supplemental to the aforesaid contract, dated September fifteen, 1900, and shall be subject to all the requirements and conditions thereof, except as herein provided, and shall in no manner affect the validity and effect or action thereof or of the bond attached thereto; and

Provided, further, that this agreement shall be accepted, signed, and sealed by the surety on the bond attached to the aforesaid contract, and said surety is hereby made a party to this agreement for the purpose of extending the obligation of said bond to cover the changes herein provided for.

In witness whereof the respective parties hereto have set their hands and seals the day and year first above written.

Signed and sealed in the presence of—

_____.

_____.

[SEAL.] THE UNITED ENGINEERING AND CONTRACTING COMPANY,
D. S. HOUGH, *President.*

Attest:
FREDERICK WOOLEY, *Ass't Sec.*

THE UNITED STATES,
BY MORDECAI T. ENDICOTT,
Chief of Bureau of Yards and Docks,
Acting under the direction of the Secretary of the Navy.

WM. M. SMITH,
As to M. T. E.

THE UNION SURETY AND GUARANTY CO.,
EUGENE VAN SCHAICK, *Chairman.*

Attest:
[SEAL.] J. J. MASON, *Secretary.*
(Endorsed:) Filed Dec. 9, 1907. Court of Claims.

44 CLAIMANT'S EXHIBIT C.

Supplemental Agreement No. 876-B.

This supplemental agreement, made and concluded at Washington, D. C., this 16th day of February, A. D. 1903, by and between the United Engineering and Contracting Company, a corporation of

New York, with offices at 13–21 Park Row, New York, N. Y., acting for itself, its successors, and legal representatives, party of the first part, and the United States, by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, party of the second part,

Witnesseth, that whereas it is deemed necessary and desirable to make certain changes in the provisions of the contract between the parties hereto, dated September 15, 1900, for the construction and completion, in all respects, of a pumping plant for dry dock numbered three (3), at the United States Navy Yard, New York, N. Y.,

Now, therefore, in consideration of the premises, and for and in consideration of the covenants and promises hereinafter stated, one for the other, it is mutually covenanted, agreed, and promised as follows, that is to say:

First. That the party of the first part shall construct three hatches in the roof of the pump well being constructed under said contract as shown upon blue print of drawing No. C36–276, hereto attached and forming a part hereof, and to the satisfaction of the officer in charge of the work;

Second. That there shall be paid to the party of the first part, in addition to the compensation agreed to be paid on account of said contract, and in the manner of making payments on account thereof, the sum of nine hundred and fifty-nine dollars and eighty cents ($959.80), which shall constitute full payment on account of this agreement.

45 And it is further mutually understood, promised, covenanted, and agreed that this agreement shall be held and regarded as and be supplementary to and amendatory of the aforesaid contract, plans, and specifications: that it shall in no manner or degree affect, modify, alter, omit, or vitiate any provision or requirement of said contract, plans, or specifications, except as specifically stated; that each and every provision and requirement of said contract, plans, and specifications shall remain in full force and effect and shall be applicable to and govern all actions, operations, and transactions on or in connection with the construction and completion of said work, except as otherwise specifically stated and provided; that nothing contained or stated in this agreement and nothing done or required under its terms shall operate or be held to annul, release, reduce, or otherwise affect the bond attached to the aforesaid contract, but the same shall be and remain in full force and virtue in the same manner and with like effect as though the modifications herein provided for had been included in and made a part of the aforesaid contract at the time of the execution of the same: Provided, however, That this agreement shall be accepted, signed, and sealed by the surety on the bond attached to the aforesaid contract, and said surety is hereby made a party to this agreement for the purpose of extending the obligation of said bond to cover the changes herein provided for.

In witness whereof the said parties have hereunto set their hands and seals the day and year first above written.

THE UNITED ENGINEERING & CONTRACTING CO.,
D. L. HOUGH, *Pres't, Party of the first part.*
THE UNION SURETY AND GUARANTY CO.,
EUGENE VAN SCHAICK, *Chairman.*

46 Attest:
W. S. MACKELLAR, *Secretary.*
[Seal of the Union Surety and Guaranty Company, Incorporated, 1899.]

THE UNITED STATES,
By MORDECAI T. ENDICOTT,
Chief of Bureau of Yards and Docks,
Acting under the direction of the Secretary of the Navy.

Signed, sealed, and delivered in the presence of—
JOHNSTON LIVINGSTON, Jr., *Sec'y,*
For party of the first part.

WM. M. SMITH,
As to M. T. E.

CLAIMANT'S EXHIBIT D.

Supplemental Agreement No. 876-C.

This supplemental agreement, made and concluded at Washington, D. C., this 7th day of March, A. D. 1903, by and between the United Engineering and Contracting Company, a corporation of New York, with offices at 13–21 Park Row, New York, N. Y., acting for itself, its successors and legal representatives, party of the first part, and the United States, by Mordecai T. Endicott, Chief of the Bureau of Yards and Docks, Navy Department, acting under the direction of the Secretary of the Navy, party of the second part,

Witnesseth, that whereas it is deemed necessary and desirable to make certain changes in the provisions of the contract between the parties hereto, dated September 15, 1900, for the construction and completion, in all respects, of a pumping plant for Dry Dock Numbered Three (3), at the United States Navy Yard, New York, N. Y.,

47 Now, therefore, in consideration of the premises, and for and in consideration of the covenants and promises hereinafter stated, one for the other, it is mutually covenanted, agreed, and promised as follows, that is to say:

First. That the party of the first part shall modify the work being done under said contract as indicated and illustrated by copy of the report of the board and plan attached hereto and forming a part hereof, and to the satisfaction of the engineer in charge of the work;

Second. That there shall be paid to the party of the first part, in addition to the compensation agreed to be paid on account of the aforesaid contract, and in the manner of making payments on account thereof, the sum of six thousand seven hundred and eight dollars and five cents, which shall constitute full payment on account of said contract and this agreement.

And it is further mutually understood, promised, covenanted, and agreed that this agreement shall be held and regarded as and be supplementary to and amendatory of the aforesaid contract, plans, and specifications; that it shall in no manner or degree affect, modify, alter, omit, or vitiate any provision or requirement of said contract, plans, or specifications, except as specifically stated; that each and every provision and requirement of said contract, plans, and specifications shall remain in full force and effect, and shall be applicable to and govern all actions, operations, and transactions on or in connection with the construction and completion of said work, except as otherwise specifically stated and provided; that nothing contained or stated in this agreement and nothing done or required under its terms shall operate or be held to annul, release, reduce, or otherwise affect the bond attached to the aforesaid contract, but the same shall be and remain in full force and virtue in the same manner and with like effect as though the modifications herein provided for had been included in and made a part of the aforesaid contract at the time of the execution of the same: Provided, however, That
47 this agreement shall be accepted, signed, and sealed by the surety on the bond attached to the aforesaid contract, and said surety is hereby made a party to this agreement for the purpose of extending the obligation of said bond to cover the changes herein provided for.

In witness whereof the said parties have hereunto set their hands and seals the day and year first above written.

THE UNITED ENGINEERING & CONTRACTING CO.,
D. S. HOUGH, *Prest.*

Signed, sealed, and delivered in the presence of—
FRANCIS L. PRUYN, *Ass't Sec'y.*

THE UNION SURETY AND GUARANTY CO.,
EUGENE VAN SCHAICK, *Chairman.*

Attest:
[SEAL.] W. S. MACKELLAR, *Secretary.*

THE UNITED STATES,
By MORDECAI T. ENDICOTT,
Chief of Bureau of Yards and Docks,
Acting under the direction of the Secretary of the Navy.

WM. M. SMITH,
As to M. T. E.

(Copy—E. B. S.)

NAVY YARD, NEW YORK,
February 16th, 1903.

SIR: Complying with instructions contained in letter from
49 the Bureau of Yards & Docks No. 7822, dated January 17th, 1903, and your 1st endorsement ordering a board, copies of which are attached, marked "A," we have the honor to report as follows:

2. (a) We are of the opinion that it will not be necessary to remove the entire floor; that the concrete should be removed down to the head of the piles, as shown on drawing No. 7052 accompanying this report.

(b) The above referred to drawing shows the location and method of waterproofing. Specifications for waterproofing are as follows: Remove all concrete above the concrete marked "Present concrete" on plan No. 7052. The old concrete is to be brought to a sufficiently even surface to allow waterproofing to be placed on it; after the surface of the old concrete is prepared, it is to have a thin binder coat of asphalt dissolved in gasoline in proportions as directed by the officer in charge and a coat of hot asphalt, then alternately layers of felt and hot asphalt until six coats of felt have been applied and seven coats of hot asphalt. The felt is to be equal to the "Beaver" brand roofing felt, weighing not less than fifteen pounds per 100 square feet. Waterproofing is to be put on by experienced workmen and the coats of felt so applied and smoothed out that no air bubbles or wrinkles will appear. This waterproofing is to join on to the waterproofing already in back and under the brick wall.

(c) On the waterproofing is to be placed new concrete and Clinton wire cloth, approximately as shown on drawing No. 7052, and to a height as shown on that drawing, which is 6" above the height shown on the original plans and called for in the original specifications.

SPECIFICATIONS.

The concrete is to be the same as originally specified; there are to be four courses of Clinton wire cloth of #4 and #6, located as shown on the above referred to drawing.

50 (d) Owing to the fact that there are errors in design, as stated by the bureau in the 3rd paragraph of its above referred to letter, and also to the fact that there is no evidence before the board that the work was not done according to the specifications and that the material complied with the specifications, we are of the opinion that none of this work is properly chargeable against the contractors for improper work or procedure.

(e) In regard to item #6 of the contractors' claim, mentioned in the 5th paragraph of the above referred to bureau's letter, we are of

the opinion that there is nothing to prevent the contractors from using such old pipe as is suitable, this old pipe being at least as good as that which has remained in the ground and has not been touched. The contractors have presented the original bills for work in connection with item #6 of their claim, amounting to $459.99, which with 10% added would make their claim $505.99, to which we think they are entitled.

(f) Referring to item #11, referred to in the 5th paragraph of the bureau's above referred to letter, we are of the opinion that there was nothing in the specifications compelling test of the pipe under pressure. The contractors stated before the board that they did not wish to test the pipe under pressure and objected to doing so, but offered to test the pipe with the vacuum called for in the specifications when the proper time arrives. While being required to test the pipe under pressure, the valves broke. The contractors have furnished the board with original receipted bills for repairs to the valves, amounting to $950.00; labor on the same, they stated to the board, amounted to $81.88, total, $1,031.88, to which is added 10% for contractor's profit, making a total charge of $1,135.06.

3. We estimate the increased compensation due the contractors as follows:

51	Excavation for concrete around and under walls, 70 cu. yds. at $5.00	$350.00
	Excavation for concrete floor of chamber, 200 cu. yds. at $2.50	500.00
	New concrete in place, 324 cu. yds. at $8.00	2,592.00
	Waterproofing, 360 sq. yds. at $1.84	662.40
	4 layers of Clinton wire cloth	708.00
	Removing machinery, jointing, etc	254.60
	Item # 6, contractors' claim	505.99
	" #11, " "	1,135.06
		$6,708.05

4. Drawing #7052 is herewith forwarded under separate cover.

Very respectfully,

(Signed) P. F. HARRINGTON,
Captain, U. S. N.

" R. C. HOLLYDAY,
Civil Engineer, U. S. N.

" E. W. EBERLE,
Lieutenant, U. S. N.

" O. W. KOESTER,
Lieutenant, U. S. N.

The COMMANDANT,
Navy Yard, New York.

Approved, Feb. 26, 1903.

(Signed) MORDECAI T. ENDICOTT,
Chief of Bureau.

Bu. No. 7822—H. L. T. "A."

Bureau of Yards and Docks,
Navy Department,
Washington, D. C., *Jan. 17, 1903.*

Sir: Be pleased to appoint a board of officers to report what modification in construction of the present bottom of pump well of Dry Dock No. 3, being constructed under contract No. 876, with the United Engineering and Contracting Company, should be made to remedy existing defects and furnish a tight and substantial floor.

52 2. The board will state whether in its opinion the entire floor should be removed or if a portion only; and if so, how much.

3. The bureau desires to waterproof the floor in an effective manner. Some disputes and misunderstandings have occurred between the contractors and the Government officers as to the causes of the present defects in the pump well floor. The bureau is clear that whatever defects there may have been in construction, there are errors in design, and desires to know what part of the present defective condition is properly chargeable to improper work or procedure, and what to improper design.

4. In estimating the increased cost due to changes, the board exercising its best judgment, will recommend as to what proportion of increased cost is, taking all these matters into consideration, properly chargeable to the contractors.

5. Items 6 and 11 of the contractors' statement (copies enclosed) should be referred to the board, and the board will recommend the amount of compensation due the contractors under these two items.

6. Extracts from the correspondence between the bureau and the contractors are enclosed herewith for the information of the board.

Very respectfully,

(Signed) Mordecai T. Endicott,
Chief of Bureau.

The Commandant,
Navy Yard, New York, N. Y.

(Enclosures.)

1st endorsement: Navy Yard, New York, Jan. 19, 1903. Respectfully referred to Captain P. F. Harrington, Civil Engineer R. C. Hollyday, Lieutenant E. W. Eberle, Lieutenant O. W. Koester, who are hereby constituted a board to carry out the instructions of the bureau, as contained in the within letter. (Signed) A. S. Barker, Rear Admiral, U. S. N., Commandant Navy Yard & Station.

(Endorsed:) Filed Court of Claims, Dec. 9, 1907.

53 III.—*Traverse.*

Filed February 20, 1912.

In the Court of Claims of the United States. December Term, A. D. 1911.

THE UNITED ENGINEERING AND CONTRACT CO.
vs.
THE UNITED STATES. } No. 30072.

And now comes the Attorney General, on behalf of the United States, and answering the petition of the claimant herein, denies each and every allegation therein contained; and asks judgment that the petition be dismissed.

JOHN Q. THOMPSON,
Assistant Attorney General.

54 IV.—*Argument and submission of case.*

On February 20, 1912, this case came on to be heard. Mr. John S. Flannery was *was* heard for the claimant. Mr. Philip M. Ashford was heard for the defendants. On February 21, 1912, Mr. Ashford was heard further for the defendants; Mr. Flannery replied, and the case was submitted.

55 V.—*Findings of fact, as amended, and conclusion of law and opinion of the Court.*

Filed as of May 13, 1912.

THE UNITED ENGINEERING AND CONTRACTING COMPANY
v.
THE UNITED STATES.

This case having been heard by the Court of Claims, the court, upon the evidence, makes the following

FINDINGS OF FACT:

I.

The claimant is a corporation organized under the laws of the State of New York for the purpose of carrying on a general construction and engineering business, with its principal office and place of business in New York City.

II.

On September 15, 1900, the claimant, in response to the advertisement therefore, entered into a contract with the United States, through

Mordecai T. Endicott, Chief of the Bureau of Yards and Docks of the Navy Department, by which it agreed for the sum of $79,435 to furnish all the necessary labor and materials for and to complete within seven calendar months from the date thereof, in strict compliance with and subject to all the conditions and requirements of the plans and specifications forming part thereof, a pumping plant for Dry Dock No. 3 at the New York Navy Yard, to be operated electrically, which contract and specifications made a part thereof are set forth in the petition herein as Exhibit A.

III.

The claimant assembled its men and materials and began the construction of said pumping plant in accordance with said contract. After the work was started and an excavation had been made for the pump pit, driving some piles in and around same, and making drawings for the pumps and motors necessary to install the plant, the Navy Department concluded to connect Dry Dock No. 2 with Dry Dock No. 3 and to build a single pumping plant for both docks,
56 to be operated wholly by electricity, to accomplish which the claimant, through the same officers, on July 21, 1901, in accordance with paragraph 17 of the specifications, entered into the supplemental contract with the United States, No. 876A, made part of the petition herein as Exhibit B, whereby the claimant agreed for the sum of $42,885 additional to the original contract price to furnish all of the material and labor necessary to carry out the changes in and additions to the pumping plant contracted for in said original agreement, and to complete the same on or before October 15, 1901, to which date said original contract was extended.

IV.

While the work was progressing under the original and supplemental contracts a controversy arose between the claimant and the civil engineer in charge as to the proper method of designing and constructing the floor of the pump well, as to the correct interpretation of the requirements of the specifications concerning the construction of the suction chamber and other matters, which controversy resulted in considerable delay and cessation of work without the fault of the contractor.

Jnuary 13, 1903, the Chief of the Bureau of Yards and Docks appointed a board to consider changes in the bottom of the pump well and the compensation to be paid therefor, of which the claimant was advised by letter, in which the contractor was informed that it would be expected to immediately resume work under its contract and push the same to completion with the utmost dispatch, otherwise the bureau would annul the contract and take over the entire work thereunder. The claimant thereupon promised to push the work to completion as rapidly as possible. With this promise the bureau appears to have been satisfied.

V.

After the date fixed for the completion of the work under the original and supplemental contracts 876 and 876A, the claimant, on February 16, 1903, through the same officers, as authorized by paragraph 17 of the specifications, entered into a second supplemental contract with the United States, No. 876B, which is attached to the petition herein as Exhibit C, whereby the claimant agreed to construct three hatches in the roof of the pump well for the sum of $959.80 additional to that named in the aforesaid contracts. Nothing was said in said last-named contract as to the time of completion or as to delays under prior contracts.

VI.

The board of officers appointed to consider the sufficiency of the design of the floor of the pump well and other matters in controversy between the claimant and the civil engineer, as set forth in Finding IV, reported February 16, 1903, in substance that there were, as conceded by the Bureau of Yards and Docks, errors in the design of the pump-well floor; that the work done and materials furnished by the contractor complied with the specifications, and that therefore the contractor was not chargeable with improper
57 work or procedure. The board estimated the increased compensation due the contractor for the new work at $6,708.05, and also made certain allowances to it for extra work.

Thereafter, on March 7, 1903, in conformity with said paragraph 17 of the specifications, the third supplemental contract with the same parties was entered into, being contract 876C, which is attached to and made part of the petition as Exhibit D. Said contract embodied the changes found necessary in the original plan for the construction of the floor of the pump well, and in which also it was stipulated that the claimant should be paid, in addition to the compensation agreed upon in the original contract, said sum of $6,708.05 in full of said contract. In said third supplemental agreement no mention was made as to the date of the completion of either the original or additional work nor as to the subject of delays prior thereto.

VII.

The claimant proceeded under the contracts with reasonable dispatch and without delay on its part until May 1, 1903, when the work was ready for the installation of the machinery. Up to this date the claimant was delayed by the Government in making changes and alterations in the work and in the use of the docks for docking vessels while the work was going forward. No forfeitures or delays were charged to the claimant to October 15, 1901, the time fixed for the completion of the work, nor thereafter to May 1, 1903. During this period, by reason of the delays of the Government aforesaid, the claimant incurred additional expenses for superintendence and main-

tenance of the plant amounting to $3,000, which sum is reasonable if the claimant is entitled to recover therefor.

VIII.

During the period from May 1, 1903, to about April 21, 1904, the work was delayed by the claimant's subcontractors in not getting the pump castings in place, for which the Government was in no way responsible. The claimant was also delayed for a few days during said period by the Government while using the docks for docking vessels.

At the request of the Bureau of Yards and Docks a civil engineer made a review of the matter of delays, and in February, 1905, reported in effect that notwithstanding the increased work required by the supplemental agreements and the restrictions placed upon the work the claimant was "up to time" on its contracts to May 1, 1903, but that subsequent to that date and up to said April 21, 1904, the claimant had taken seven calendar months more time than was necessary to perform the work. After the plant was completed a board was appointed to pass upon the same, and it recommended the acceptance of the plant and certain deductions from the contract price for failure to strictly comply with the specifications, amounting in all to $850. On March 24, 1905, the civil engineer in charge transmitted to the claimant a supplemental agreement (876D) covering such deductions, which agreement contained a reservation "that nothing herein contained and no action taken hereunder shall in any manner
or degree affect the rights of either party hereto in the matter
58 of delay and the completion of the work or otherwise except as specifically stated," which supplemental agreement the claimant refused to execute; and thereafter in February, 1906, long after the plant had been accepted, the bureau held the claimant responsible for 240 days' delay at the rate of $25 per day, or $6,000, as liquidated damages and deducted the same from the balance due under the contract, which balance the claimant accepted under protest, and subsequently filed with said bureau a written protest against said deduction for delays and disallowances.

The court finds that notwithstanding the delays of the Government the claimant with reasonable diligence could have completed the plant for tests during said period by about September 21, 1903. The time consumed by the claimant from that time to April 21, 1904, a period of 210 days, or seven calendar months, was unreasonable, by reason of which delays the Government was damaged, if measured by the liquidated-damage clause of paragraph 12 of the specifications at $25 per day, in the sum of $5,250; otherwise there is no evidence as to the actual damage sustained; and if only actual damages are recoverable, then the claimant is entitled to recover the whole amount of $6,000 so deducted, otherwise the difference between the amount so deducted and the amount found by the court, $750, as hereinbefore set forth.

IX.

The work was completed and accepted for tests by the Government about April 21, 1904; and after tests of the plant in different parts, the docking of vessels by the Government, and incidental repairs, the plant was finally accepted by the Government April 5, 1905.

During said period the claimant was required by the officers in charge to maintain and operate at its own expense the pumping station, of which time two months were ample for testing the machinery. The residue of the time, about ten months, the claimant without its fault was delayed by the Government in the use of the docks for docking vessels at an extra expense to the claimant of $3,562.35, including 10 per cent profit, which amount is reasonable if the claimant is entitled to recover therefor.

X.

In the performance of the work under the contracts the claimant was directed and required by the officer in charge to furnish for the benefit of the Government (and which it received) additional work, labor, and materials as follows:

(Items 1, 2, and 3, averred in the petition, are abandoned for want of proof.)

Item 4. Gear casing.—The contractor had purchased and installed standard valves which, in accordance with the custom of the trade, were not supplied by the manufacturers with casing or covering. The valves so installed were intended by the claimant to be opened and closed by motors operated from a switchboard so arranged that workmen need not be in close proximity thereto. This method was abandoned. After the plant was designed and while the work was progressing under the contract the defendants built a
59 plank walk across the top of the pipe in the pumping plant for the more convenient use of their workmen; and to protect them from the high-speed gearing the claimant was required to and did inclose said machinery with a casing at an extra cost to it of $479.05, which is reasonable if the claimant is entitled to recover therefor.

The expense was necessitated by the plank walk so built across the top of the pipe as aforesaid by the defendants.

Item 5. Extra piles.—When the claimant was preparing its bid for connecting Dry Dock No. 2 with Dry Dock No. 3 under the specifications and supplemental agreement 876A there was exhibited to it by the engineer in charge a working plan dated March, 1892, showing the details of a proposed timber dry dock, subsequently built by John Walsh, and known as Dry Dock No. 2, which working plan, approved by the Chief of the Bureau of Yards and Docks, had been used in the construction of said dry dock. The engineer in charge at the time expressed to the claimant his belief, which appears to have been honest, that the piles indicated on the plan were sufficient

to support their work, and relying thereon the claimant, in suggesting a price to the board on such changed construction, without further investigation, estimated for a less number of piles than it was subsequently required to furnish. The additional piles were made necessary by reason of the defective piles theretofore driven. These piles were covered with asphalt, and the claimant could not have made any examination to determine their condition without destroying the asphalt and the piles themselves. In the course of its work on the pumping plant the claimant was required to drive 78 piles additional to those estimated for in its bid to replace old piles, which were in bad condition or insufficient in length, which it did, without protest or objection, at an expense to it of $1,139.50, which is reasonable, if the claimant is entitled to recover therefor.

Item 6. Sheet piling.—While the claimant was engaged in the construction of the suction chamber, the engineer in charge, to enable the Government to use the dock for docking vessels, as well as to enable the claimant to proceed with the work, required the claimant to drive a number of sheet piles around the suction chamber to stop a leak which had developed in the old piling theretofore driven by the Government, for which the claimant was not responsible. The cost of this work was $323.84, which is reasonable, if the claimant is entitled to recover therefor.

Item 7. Night work on new suction chamber.—In the month of September, 1902, to enable the Government to dock the U. S. S. "Maine" and other vessels, the claimant agreed with the Chief of the Bureau of Yards and Docks to keep its men, who were engaged in the construction of the new suction chamber, on night duty, which it did at an additional cost of $636.44, which is reasonable, if the claimant is entitled to recover therefor.

Item 8. Reconstruction of old suction chamber.—Prior to entering into supplemental contract A, the engineer in charge told the claimant that the old suction chamber was not to be rebuilt, but that the end walls thereof were to be knocked out. In the performance of the work the civil engineer in charge construed the original contract, No. 876, and supplemental contract, No. 876A, to require the contractor to build a new suction chamber and also to completely reconstruct the old chamber, which construction of the contracts
60 on appeal thereto was sustained by the Bureau of Yards and Docks, and the contractor was required to perform the work, which it did under protest, and completed the same at an expense to it of $2,609.73, which is reasonable, if the claimant is entitled to recover therefor.

Items 9, 10, and 11 are abandoned for want of proof.

Item 12. Additional electric wiring.—During the progress of the work of installing the machinery in the pump pit, a dispute arose between the contractor and the civil engineer in charge in respect to connecting the motors with the switchboard. The claimant proposed to furnish a copper wire of the size called for by the regulations and standard of the Fire Underwriters' Association and the custom and

practice of the trade of building wiring, which would have been effective for the purpose and would have cost about $1,375. The wire so proposed to be furnished was rejected, and the contractor was required by the engineer in charge to furnish a copper wire of the size prescribed by the Standard Underground Cable Co., of from two and one-half to three times larger in cross-sectional area and proportionately more expensive, which the contractor did under protest at an increased cost to it of $3,833.96, which is reasonable if the claimant is entitled to recover therefor.

XI.

Breakage in drain pipes.—During the construction of the pumping plant there were in said navy yard two systems of water pipes, one a fresh-water system connected with the water system of the city of Brooklyn, and the other a salt-water system belonging to the navy yard, with both of which systems of supply in the navy yard, as required by the contract, the claimant's system of priming the pumps in the pumping well was connected. The pressure of these respective systems was subject to sudden increase for fire purposes in the salt-water system and to a cessation of use at times of the fresh-water system for city purposes.

In the month of October, 1904, the volute of drain pipe No. 1, being a part of claimant's priming system, burst as the result of sudden pressure caused by the Government in one or the other of said water systems without notice to the claimant and without its fault. The claimant immediately repaired said break, and to forestall against accidents of a like nature in the future placed a reducing valve in said priming system. Notwithstanding this precaution the elbow of drain pipe No. 2 was subsequently broken by pressure in one or the other of said water systems. The claimant immediately repaired this break, the cost of all which to the claimant was $699.97, which is reasonable if the claimant is entitled to recover therefor.

XII.

Replacing broken valve.—In the winter of 1904–5, while the pumping plant was in course of construction, the Government installed on its own account an electric heater in the pump pit so near to a valve that the valve itself became heated, and on one occasion when this condition existed a particularly high tide and a western storm occurred in conjunction, endangering the caisson of Dry Dock No. 3. As a precautionary measure the civil engineer caused said dry dock to be partially flooded so as to equalize the pressure on the
61 caisson. This filled the suction pipe leading to said valve with cold water, thereby causing the valve to crack, as was subsequently discovered.

In the construction and installation of said valve no provision had been made to take care of expansion and contraction due to changes

in temperature. To replace said broken valve cost the claimant the sum of $604, which amount is reasonable if the claimant is entitled to recover therefor.

XIII.

Renovating electrical machinery.—The electrical machinery was delivered at the navy yard some time prior to May, 1903, when the work was being delayed by the Government, but the same could not be installed then, as claimant well knew, because the pumps were not in place. The installation of the pumps was delayed for about 11 months after May 1, 1903, because the claimant's subcontractor was unable to get certain castings necessary for the installation of the pumps.

During most of the period of delay the electrical machinery was stored by the claimant under a shed covered with weather or tar paper, which was not sufficient to protect said machinery from the elements, and it became rusted. As a result of inefficient storage, for which the Government was not responsible, the claimant was *d*equired by the engineer in charge to overhaul and renovate the machinery before installing the same. This was done by the claimant at a cost to it of $3,841.98, which is reasonable if the claimant is entitled to recover therefor.

CONCLUSION OF LAW.

Upon the foregoing findings of fact the court decides, as a conclusion of law, that the claimant is entitled to recover on Findings VII, VIII, IX, XI, XII, and items 4, 7, and 12 of Finding X in the sum of $18,815.77.

OPINION.

PEELLE, Ch. J., delivered the opinion of the court:

The Government by motion seeks a new trial on the assigned ground of error of fact and of law, and also asks that Findings X and XI be amended in certain particulars. We will, therefore, review the case.

This action arises out of delays of the Government and for deductions as liquidated damages from the contract price for delays of the claimant in the performance of contracts in the construction of a pumping plant to be operated by electricity for dry docks at the navy yard in New York and for extra additional work.

The original contract was entered into through the Chief of the Bureau of Yards and Docks September 15, 1900, whereby the claimant agreed, for the consideration of $79,435, to furnish all necessary labor and materials and to complete within seven calendar months, in accordance with the plans and specifications made part of the contract, a pumping plant for Dry Dock No. 3 at the New York Navy Yard.

In accordance with the contract the claimant began work, and after it had excavated for the pump pit, driven some piles in and
62 around same, made drawings for the pumps and motors necessary to install the plant, the Navy Department concluded to connect Dry Dock No. 2 with Dry Dock No. 3 and to build a single pumping plant for both docks, to be operated wholly by electricity. To this end a supplemental contract (A) was entered into, whereby the claimant, for the additional consideration of $42,885, agreed to furnish all necessary labor and materials to carry out the changes so agreed upon and to complete the same on or before October 15, 1901, to which date the original contract was extended.

After the date agreed upon for the completion of the work under the original and supplemental contracts, and while the work thereunder was progressing, the claimant, on February 16, 1903, entered into a second supplemental contract (B) with the United States, whereby the claimant agreed to construct three hatches in the roof of the pump well for the additional sum of $959.80, nothing being said therein as to the time of the completion of the work or as to delays under prior contracts.

During the progress of the work a controversy arose between the claimant and the civil engineer in charge as to the method of designing and constructing the floor of the pump well and also as to the requirement of the specifications respecting the construction of the suction chamber, which disagreement resulted in the appointment of a board by the Chief of the Bureau of Yards and Docks to consider changes in the bottom of the pump well and the compensation to be paid therefor. The board reported that the work had been done by the claimant in accordance with the specifications, and that it was chargeable with no improper work or procedure. The board estimated the increased cost of the new work at $6,708.05, for the doing of which a third supplemental contract (C) was entered into March 7, 1903, in which no mention was made as to the time of completion of either the original or supplemental contracts nor as to the subject of delays prior thereto.

By reason of the changes so made by the Government and the use of the dock for docking vessels, as set forth in Finding VII, the claimant was delayed in getting the work ready for the installation of the machinery until May 1, 1903, during which time the claimant incurred extra expenses of superintendence and maintenance of the plant amounting to $3,000, for which amount, being due to the delays of the Government, the claimant is entitled to recover.

During the period from May 1, 1903, to April 21, 1904, when the plant was completed ready for tests, the claimant unreasonably delayed the work, as set forth in Finding VIII, for about 210 days, by reason of which the Government was damaged, if measured by the liquidated damage clause of the contract, $5,250; otherwise there is no evidence as to the actual damage sustained; and if only actual damages are recoverable then the claimant is entitled to recover the whole amount of the deduction, $6,000; otherwise $750, the difference

between said deduction and the amount found by the court, as set forth in Finding VIII.

And in respect of this branch of the case the claimant's contention is that as the work was not completed within the extended contract time by reason of the delays of the Government, and no other time was fixed in the second or subsequent supplemental contracts, the time limit was thereby waived, and the claimant was therefore
63 entitled to a reasonable time within which to do the work; and if not done within a reasonable time and the Government was thereby damaged, then actual damages only can be recovered, to be shown by evidence independent of the provision of the liquidated damage clause of the contract. In support of this contention the claimant cites the cases of District of Columbia v. Camden Iron Works, 181 U. S. 453; King v. United States, 37 C. Cls., 428; and United States ex rel. The International Contracting Co. v. Lamont, 155 U. S., 303; United States v. Gleason, 175 U. S., 588, 609.

That the claimant was, for the reasons stated, entitled to a reasonable time within which to do the work is in effect conceded by the defendants, but they insist that the liquidated damage clause of the contract was continued in force and furnishes the measure of damages without other proof.

The provision of the contract, being paragraph 12 of the specifications relied upon, provides:

"12. *Damages for delay.*—In case the work is not completed within the time specified in the contract, or the time allowed by the Chief of the Bureau of Yards and Docks under paragraph 11 of this specification, it is distinctly understood and agreed that deductions at the rate of $25 per day shall be made from the contract price for each and every calendar day after and exclusive of the date within which completion was required up to and including the date of completion and acceptance of the work, said sum being specifically agreed upon as the measure of damage to the United States by reason of delay in the completion of the work; and the contractor shall agree and consent that the contract price, reduced by the aggregate of damages so deducted, shall be accepted in full satisfaction for all work done under the contract."

It is true that as a general rule the courts—not regarding forfeitures with favor—incline to construe the damage clause of contracts, where not clearly expressed otherwise, as a penalty where the same can be accurately ascertained.

The sum so specifically agreed upon in the paragraph of the specifications quoted as the measure of damages, it is therein provided, shall be deducted from the contract price, and the amount so reduced "shall be accepted in full satisfaction for all work done under the contract." While neither the word "penalty" nor "liquidated" damages is mentioned in the contract, the intention of the parties, from a fair construction of the language, is clear. Globe Refining Company v. Landa Cotton Oil Company, 190 U. S., 540; Sun Printing and Publishing Co. v. Moore, 183 U. S., 642.

But from the tenor of the claimant's argument we infer that no question would be raised as to the character of the damages had it failed through its own fault to complete the work within the extended contract time. The contention is, as before stated, that the work not having been completed within a reasonable time the loss to the Government, if any, became a penalty, subject to proof as to the actual damages sustained.

Now, did the Government by its conceded delays in preventing the completion of the work within the contract time thereby waive the time limit so as to disable itself from thereafter claiming the benefit of the liquidated damage clause of the contract for failure to perform within a reasonable time? That is to say, within a reasonable
64 time measured by the circumstances existing at the date the contract time ceased. Lyle Shipping Co. v. Cardiff Corporation (1900), 2 Q. B., 638.

In view of the insistence of counsel for the Government that the decision in this case is "so clearly and emphatically a reversal of all previous decisions of this court," we will review, among others the decisions to which he refers.

Counsel for the Government contends that the cases of the District of Columbia v. The Camden Iron Works, 181 U. S., 453, and Ittner v. United States, 43 C. Cls. 336, are not applicable, because the claimants in those cases were prevented from performance by the Government and thereafter they completed the work within a reasonable time.

However, in the case of the District of Columbia v. The Cambria Iron Works (supra, p. 464) the court ruled that where strict performance was prevented or waived there could be no recovery for fines or penalties for delay or failure.

In the Ittner case, 43 C. Cls., 336, the claimant, by reason of the delay of the Government in signing the contract, was unable to complete the work within the contract time, and in his request that the time limit be waived agreed that, if granted, "all other provisions of the contract shall remain in force" and that he would complete the work within 90 days' additional time. The engineer in charge recommended the approval of his application, but he was allowed a reasonable time and within that time he completed the work, and yet liquidated damages were deducted as though the time limit had not been waived. The claimant recovered judgment in this court for the whole amount of such deduction, from which judgment no appeal was taken. This case has since been followed by the Comptroller of the Treasury, 14 Comp. Dec., 819, 824; 15 Comp. Dec., 362, 368. These decisions also are in line with Hudson on Building and Engineering Contracts, 3d ed., vol. 1, p. 524, and cases there cited.

In the Ellicott Machine Co. case, 43 C. Cls., 232, the claimant had failed to complete the work within the contract time, and the only question was whether the contract provided for liquidated damages; and the court held that it did, and hence no proof otherwise of the amount of such damages was necessary.

In the case of United States v. Bethlehem Steel Co., 205 U. S., 105, the claimant had made four bids based on different dates of delivery, the highest bid being for the shortest time, and on failure to deliver agreed that there should be deducted an amount per day equivalent to the difference between the short and the long time for delivery. The court construed the language as evidence that time was of the essence of the contract and that therefore the amount so stipulated to be deducted was liquidated damages and that as the claimant had failed to perform within the agreed time the amount was properly deducted, though credit was given to the claimant for the delays subsequently caused by the Government. Hence, independently of the agreed damages, to have held otherwise would have been giving the contractor the highest price for the longer time in delivery, contrary to its bid.

Besides, the delay in performance was mainly and in the first instance caused by the claimant, and being in default when the delays of the Government occurred he was in no condition to say that its delays had prevented him from performance within the con-
65 tract time, though it had delayed him from performance thereafter, for which he was entitled to credit.

It was doubtless for this reason that the question whether the time limit had been waived was not raised and, hence, the date from which to assess damages was not eliminated, though the period for which damages could be assessed was shortened by the delay of the Government, leaving the single question whether the language of the contract could be construed as liquidated damages or a penalty.

The court therein refers to the case of the Sun Printing & Publishing Association v. Moore, 183 U. S. 642. There the question was as to the payment by a charter party of a sum agreed upon as the value of a vessel if he failed to return it. The question of time was not essentially involved and therefore the amount to be paid was rather in the nature of a covenant giving the charter party the election to return or not; and if not, to pay the value agreed upon and not some other value. Smith v. Bergengren, 153 Mass., 236.

True the vessel was wrecked and lost, but, says the court, "the risk was hence cast upon him of loss, even be it without his fault," so the price of the vessel, the court held, should be paid, not because the vessel was wrecked and lost, but because it was not returned.

The transaction is akin to a conditional sale to a charter party for an agreed price on failure to return instead of the value of the vessel at the happening of an event upon which payment is to be made. The damage on failure to return was the price agreed upon for the vessel, but if the vessel had not been so valued in the charter party the damage recoverable would have been the value of the vessel shown by the evidence. See Walls v. Comors, 115 U. S., 353, 360, and cases there cited.

The court in effect held that though the actual damages could readily have been ascertained, nevertheless, as the parties had agreed

upon the value of the vessel as the measure of damage on failure to return, the contract was upheld.

In referring to that case this court in the Phoenix Iron Co. v. United States, 39 C. C., 526, 542, said, "it is true that in the above case it was not a question of penalty or liquidated damages, but the transaction is akin to a stipulation as to the damages in case of the nonperformance of an agreement within a specified time."

In the Morse Dry Dock and Repair Co. v. Seaboard Transportation Co., 161 F. R., 99, 100, the court held that while a default by the defendants would have constituted a waiver of the time limit, the delay was not due to the defendants, but was caused by a strike, and therefore the claimant was liable for damages. The court, however, said that the case followed the decision in McGowan v. American Press Tan Bark Co., 121 U. S., 575, in which only actual damages were involved.

The numerous cases cited by counsel for the Government in his reply brief on a motion for a new trial are, as he concedes, cases in which the court was required to determine whether "certain provisions of certain contracts were for penalties or for liquidated damages;" and as to the case of the Phoenix Iron Co. v. United States, supra, there was no question of waiver involved, apparently for the reason that the delays of the Government, as shown by paragraph 2 of Finding VIII, were of such a character as to indicate that they were prior to the extension of the contract shown in find-
66 ing II; but the question as to whether the Government had waived the contract time was not raised, and therefore the effect of such waiver was not passed upon; that it to say, a waiver by operation of law arising out of the delays of the Government in preventing a contractor from the performance of his contract within the contract time.

Now let us notice some of the cases which clearly sustain the decision of the court as heretofore announced and as herein adhered to:

It was early held in England that the amount of penalty stated in the contract was not conclusive on either party, as the actual damages proven might be more or less, but that liquidated damages bind both parties. Winter v. Trimmer, 1 H. B. L., 343. Later, in the case of Wilbeam v. Ashton, 1 Campbell, 78, it was held that the damages could not exceed the amount of penalty. However that may be, liquidated damages bind both parties and to be enforceable as such must have a definite date from which to run. Dodd v. Churton, 1 Q. B., 562; Kemp v. Rose, 1 Giff., 258. If, however, such contract provides for an extension of time for completion, and such extension be granted, that will fix a different date from that named in the original contract.

Here, however, while specification 11, made part of the contract, provides that an extension of time for the completion of the work can only be granted in writing by the Chief of the Bureau of Yards and Docks, no such extension was granted except by the terms of the first supplemental contract; nor, as therein provided, shall an exten-

sion of time "be implied from any cause under any circumstances." Hence as the work was not completed within the contract time by reason of the delays of the Government, the time limit was thereby waived and the claimant had a reasonable time within which to perform. Moore, Receiver, v. United States, 46 C. Cls., 139. See also Dodd v. Churton, supra. This being true, the definite date from which the liquidated damages were to accrue was eliminated. Drown v. Ingalls, 3 Wash., 424.

In the case of King Iron Bridge & Mfg. Co. v. City of St. Louis, 43 Fed. Rep., 768, 769, where the claimant had contracted for the construction of a bridge on piers to be prepared by the defendant, with a provision for a fixed sum as penalty per day for delay, and where the defendant had prevented the contractor from performance, the court said:

"The result is that the provision awarding damages in a given sum, should there be delay in completing the contract, was as effectually eliminated from the contract as if the parties had canceled it by express agreement, and it is wholly immaterial whether we say the provision in question was waived or that the defendant is estopped from insisting on the provision. It either event the result is the same. The city, by its own default, having rendered performance impossible within the time limited, has lost its right to claim the deductions specified in the contract. The law to this effect is well settled and fundamental. Stewart v. Keteltas, 36 N. Y., 388; Weeks v. McCarthy, 89 N. Y., 566; Starr v. Mining Co., 13 Pac. Rep., 195; Mansfield v. Railroad Co., 6 N. E. Rep., 386; Navigation Co. v. Wilcox, 7 Jones (N. C.), 481; Dumke v. Puhlman (Wis.), 21 N. W. Rep., 820; Jones v. Railroad Co., 14 W. Va., 523."

"For an unreasonable delay in erecting the superstructure after the piers were fully completed, whereby the city sustained
67 injury, it might perhaps be entitled to recoup damages on a counterclaim, but it has not framed its answer on that theory, and no decision on that point is necessary. It has planted itself squarely on the contract and insists upon the penalty nominated in the bond, which, for reasons above stated, it is not entitled to."

In the case of Jefferson Hotel Co. v. Brumbaugh et al., 168 Fed. Rep., 867, 874, where there was a contract providing a penalty for delay in the construction of a building, the performance of which was prevented by the owner through other independent contractors, the court said:

"It must be conceded, also, that the entire completion by plaintiff of his contract work was dependent upon these other contracts or some of them being completed first. For these conditions the hotel company must be held responsible. The enforcement of penalties are not favored in equity, and they are so enforced only after the demandant therefor has shown that he himself has strictly complied on his part with all the contract requirements prerequisite to such enforcement. It is vigorously urged that the plaintiff contractor in

this case, however, was responsible for a large number of the days of delay and the defendant company for only a few of the days thereof, and that the court, under such circumstances, should attempt to 'apportion' such delay between the two and hold the contractor liable in penalty for those days that it, in its judgment, deems he may be chargeable with. This is just what the courts can not, with any degree of certainty, do, and therefore refuse to do. * * * Therefore the courts have laid down a very salutary rule to the effect that they will not attempt to apportion such delays where the causes thereof have been mutual, but will refuse under such circumstances to enforce the penalty. The law on this matter is well laid down in a series of New York cases, such as Stewart v. Ketcltas, 36 N. Y., 388, Heckman v. Pinkney, 81 N. Y., 211, and Weeks v. Little, 89 N. Y., 566."

That case was followed and applied in the case of Velter Mfg. Co. v. Tygarts Valley Brewing Co., 168 Fed. R., 1002, 1005. See also Holme v. Guppy, 3 Meeson & Welsby (1838), 387, Findlay v. Cameron (1878), 4 Viet. L. R., 191.

In the case of McGowan v. American Pressed Tan Bark Company (supra) a contractor undertook to install machinery on a steamboat within 60 days from the date of the contract, but was prevented by the owner not furnishing the boat until after the time had expired, after which the contractor, without objection, proceeded with the work; and the court held, notwithstanding such delay, that the contractor was bound to do the work within 60 days from the time the boat was furnished, holding, however, that the failure of the owner to have the boat ready excused the contractor from strict performance, the court saying:

"It is, therefore, claimed by the plaintiff that no damages were included in the verdict on account of the delay in not erecting the machinery within 60 days from June 23, 1881 [date of the contract]. This appears to be a sound proposition. We see no error in the charge of the court, that if the defendants proceeded under the contract they were bound to complete the work within the length of time contemplated by the original agreement and such additional time as was lost by the delay in the construction of the boat. There
68 is nothing in the bill of exceptions to show that the machinery could not have been erected within 60 days after the boat was ready to receive it. The parties treated the contract as in full force, except as to the time in which it was to be performed, and the work was done and the payments were made under the contract as thus extended in time. The defendants made no claim before the suit was brought that the contract was rescinded by reason of the nonreadiness of the boat until the 10th of November, 1881, or that there was any reason in that fact which prevented them from complying with their part of the contract within the 60 days after the delivery of the boat. No such defense is set up by them in their answer, and they introduced no evidence to that effect, so far as the bill of exceptions shows. These views are in accordance with the ruling of this court in Phillips

Co. v. Seymour, 91 U. S., 646. The plaintiff went on paying the defendants on account for the machinery, and the defendants proceeded in erecting it without complaining of the delay in the furnishing of the boat and without any claim that they were not required to furnish the machinery within the 60 days after the furnishing of the boat." No question of liquidated damages was involved.

That case was followed by the Circuit Court of Appeals, Second Circuit, in the case of Morse Dry Dock & Repair Co. v. Seaboard Transp. Co. (supra), reversing the District Court, Southern District of New York, 151 Fed. Rep., 90. There a contractor engaged to make alterations in a ship and agreed to pay a certain sum as liquidated damages if he failed to complete the work within the contract time. The contract, as found by the District Court, was subsequently modified by a trifling change in the specifications involving less than $200, and the court held that the time fixed for doing the work was not thereby waived, but that the contract time for completion was extended for a sufficient length of time to perform the work. The court, among other things, said:

"This change was unimportant, and it is manifest that the parties in making it did not intend to modify the time provision in the contract. The libelant, having agreed to make the change without requiring additional time, can not now urge it as an excuse for the delay. The extra work ordered might have been done at the same time as the contract work and involved no delay in the latter. And the fact that this extra work was done in no way relieved the libelant from its obligation to complete the vessel within the stipulated time. But the question whether the respondent fulfilled its part of the contract and is in a position to claim damages for the delay is a more serious one. It was the duty of the respondent to furnish the windlass to be installed in the vessel. The installation of the windlass required about eight days' time. And yet the respondent only furnished it on October 11, 1906, the day before the time limit for the completion of the work. Whatever may then have been the state of the work, it was obviously impossible to complete it in time."

It was contended that the delay, however, was not by the respondent but by reason of a strike at the libelant's yard; and the court answering this contention said:

"The respondent's contention is based upon an assumption which it had no right to make. The respondent, seeking to enforce the damage clause in the contract, must show that it lived up to the contract itself. It can not assume that its failure to perform its
69 obligations made no difference. It is impossible to say what might have happened had the conditions been different. It can not be said that, if the libelant had received the windlass earlier, it would not have made greater efforts to hasten the work. The respondent seeking to enforce the contract can not recover damages for delay which may have been occasioned by its own default.

"Had the failure of the respondent to deliver the windlass been the cause of all the delay—had the work been waiting for the instal-

lation of the windlass when it was delivered—the default of the respondent would undoubtedly have constituted a complete waiver of the time provision in the contract. * * * Consequently, while the circumstances are not such that the delay of the respondent operated as a waiver of the time provision in the contract, it did operate as an implied agreement extending the time sufficiently to permit the installation of the windlass." No question of liquidated damages was involved therein.

Here the delays due to the Government were not before but after the work began, and thereby the time limit of the contract was waived; and as some of the work was done during the period of delay, there is no basis other than a reasonable time within which to perform. This being true, there is no definite date upon which the liquidated-damage clause of the contract can operate.

Of course where strict performance of a contract is prevented by the Government no claim for penalty or liquidated damages can arise, as the contractor is without fault; and this is the effect of the decision in the case of the District of Columbia v. Camden Iron Works, 181 U. S., 453, 461, 464, where, in this respect, the court, quoting from the case of Williams v. Bank, 2 Pet., 102, said:

"If a party to a contract who is entitled to the benefit of a condition, upon the performance of which his responsibility is to arise, dispense with, or by any act of his own prevent the performance, the opposite party is excused from proving a strict compliance with the condition. Thus, if the precedent act is to be performed at a certain time or place, and a strict performance of it is prevented by the absence of the party who had a right to claim it, the law will not permit him to set up the nonperformance of the condition as a bar to the responsibility which his part of the contract has imposed upon him. * * * If strict performance by plaintiff was prevented or waived by the defendant as contended on the facts, then the claim for fines or penalties for delay or failure to deliver the pipe could not be sustained."

In the case of Dannat et al. v. Fuller, 120 N. Y. R., 550, cited and relied upon by this court in the Ittner case, 43 C. C. Cls., 336, 351, in respect of failure to perform a contract within the specified time, the court said:

"It consequently appears to use that the failure of the plaintiffs to perform on their part operated as a waiver of the performance of the contract as to time, and the defendant consequently had the right to perform his part of the contract within a reasonable time after the plaintiffs had completed their part. The allowing of the defendant 30 days additional time in which to complete the contract, as was done in this case by the referee, does not restore the provisions of the contract which had been waived * * *."

70 In the later case of Mosler Safe Co. v. Maiden Lane S. D. Co., 199 N. Y., 479, 489, among other things, the court said:

"Where the parties are mutually responsible for the delays, because of which the date fixed by the contract for completion is

passed, the obligation for liquidated damages is annulled and, in the absence of some provision under which another date can be substituted, it can not be revived. If the respondent failed to complete within a reasonable time after crediting the appellant's delays, then the latter had a cause of action for the former's neglect and the measure of damages would be the actual loss proved to have been sustained."

The court quotes from the case of Willis v. Webster, 1 App. Div. (N. Y.), 301–305, with approval, saying where "liquidated damages are to be sustained after a given date, the plaintiff [contractor] is entitled to know with precision when he is laboring under such an obligation, and not be required to leave it to the judgment of a jury as to what is a reasonable time. It is impossible under the contract to apportion liquidated damages. Either the liability for the liquidated damage exists, or it does not. It can not half exist and half be waived. In the case at bar there was a definite contract, which was abrogated by the acts of both parties; and it requires equally concerted action to breathe life into it again.'

If such be the rule where both parties have contributed to the delay in completion, how much stronger should the rule be where the contractor has been hindered by the other party; and if that party be the Government its rights must be determined under the contract according to the rules of law applicable to individuals.

Here the delays of the Government prevented the claimant from a strict performance, and thereby it waived the contract time within which to perform, and that waiver operated to eliminate the definite date from which to assess liquidated damages; and though the claimant in continuing the work was thereby obligated to complete the same within a reasonable time the liquidated-damage clause was not thereby restored and made applicable to an unreasonable time.

It would doubtless be competent for parties to a contract to agree that in case of the waiver of a stipulation as to time, the liquidated-damage clause might be continued and made applicable to an unreasonable time. Mosler Safe Co. v. Maiden Lane S. D. Co. (supra).

Nor can the court look to the liquidated-damage clause to determine the actual damages sustained. Sometimes where contracts fail and recovery is sought on quantum meruit for work done or articles of merchandise furnished, the consideration or price fixed in such contract may be considered in determining the reasonable value of the work done or articles furnished, Salomon v. United States, 19 Wall., 17, 20; but can the liquidated damages so agreed upon in this case be considered as the actual loss or damages for nonperformance within a reasonable time when the same were expressed and intended as liquidated damages for the nonperformance of the contract within a designated time? We think not.

The views here expressed are in harmony with the contract itself, as, by specification 14 thereof, provision is made for deduction from the contract price of "the amount of any and every expense to the United States, caused by such delay"; that is to say, such "avoidable

71 delays" as the claimant "might by care, prudence, or foresight have guarded against or prevented." And whether the amount of such deduction be regarded as additional to the liquidated damages agreed upon is immaterial since the provision is independent thereof and applicable to delays beyond a reasonable time as well as to delays beyond the contract time.

Though after September 21, 1903, as set forth in Finding VIII, the claimant unreasonably delayed the work, the Government did not avail itself of the provisions of paragraphs 15 and 16 respecting annulment of the contract. On the contrary, the Government recognized, as found, that the delays had, in the first instance, been caused by the additional work made necessary under the first and second supplemental contracts and the use of the dock for docking vessels while the work was in progress. Doubtless for these reasons the Government did not elect to annul the contract; and while the claimant was permitted to continue the work to completion, it was nevertheless bound to do so within a reasonable time.

Whatever loss the Government may have suffered by reason of the claimant's breach to perform within a reasonable time must be reduced to actual damages, if any, susceptible of proof. This has not been done, and for the reasons stated the claimant is entitled to recover the $6,000 so deducted.

The findings (IX) show that the work was completed and accepted by the Government for tests April 21, 1904, and that, after tests of the plant, the docking of vessels, and incidental repairs, the plant was finally accepted by the Government April 5, 1905.

Under specification 75, made part of the contract, the plant, before being accepted, was to be subjected to "a full duty test by the contractor under the supervision of the civil engineer in charge." This obligated the claimant to maintain the plant or pumping station at its own expense during the time necessary to make the test. The reasonable time in which to make the test, however, we have found was only two months, whereas by reason of the use of the dock by the Government for docking vessels and incidental repairs the tests were not completed until April 5, 1905, or about 10 months beyond the reasonable time necessary therefor.

As a result of this delay in making tests the claimant, without its fault, necessarily incurred in maintaining and operating the plant or pumping station, so required by the Government for its benefit, the additional expense of $3,562.35, including 10 per cent profit, for which the claimant is entitled to recover unless the prior delay of the claimant thereby necessitated the delays of the Government, in respect to which the defendants contend that it operated to postpone the time for testing the plant until after April, 1904, by reason of which the Government was compelled during said period to use the docks for docking vessels; that but for the delay of the claimant the machinery could have been installed and the necessary tests and remedies incident thereto made and completed before April, 1904.

From this premise the defendants in effect argue that the additional expense incurred by the claimant in maintaining the plant beyond the time within which the tests could have been made was through its own fault, for which the Government should not be held responsible. We are unable to see the force of this argument. The same reasoning might be applied to the delays of the Govern-
72 ment from October 15, 1901, to May 1, 1903, and but for which the claimant might have completed the work for tests by the latter date; and so but for the delays of the claimant thereafter the work would have been completed earlier, but neither delay can be held to justify the Government in requiring the claimant to maintain at its own expense the pumping station for the benefit of the Government beyond the time reasonably necessary for making such tests. To so hold would be subjecting the claimant to an indirect servitude or penalty without proof of loss.

As the claimant's loss resulting from the Government's breach requiring the claimant to maintain and operate at its own expense, for the benefit of the Government, the pumping station for tests beyond a reasonable time is shown by competent proof to have been $3,562.35, the claimant is entitled to recover therefor.

This brings us to the items of extra and additional work not abandoned by the claimant for want of proof.

Item 4. Gear casing.—There is no provision in the specifications or contract providing for such casing, and, as under the custom then prevailing such casing or covering was not supplied by the manufacturer, the claimant purchased and installed standard valves without such cases. The valves so installed were intended by the claimant to be opened and closed by a motor operated from a switchboard, so arranged by the claimant that workmen need not be in close proximity thereto. After the installation of these valves and while the work was progressing the defendants built a plank walk across the top of the pipes in the pumping plant for the more convenient use of its workmen, and then, to protect them from the high-speed gearing, the claimant incased the machinery at an extra expense to it of $479.05.

The casing for protection was necessitated by the plank walk built by the Government, for which the claimant was in no way responsible, and the Government having received the benefit thereof, the claimant is entitled to recover the amount so expended.

Item 5. Extra piles.—Prior to the claimant's proposal respecting the price to be paid for the work of connecting Dry Dock No. 2 with Dry Dock No. 3, under supplemental contract 876A, the engineer in charge exhibited to the claimant and its subcontractors a working plan dated March, 1892, upon which was indicated the piles theretofore driven by the Government under another contract, the officer expressing to the claimant and its subcontractors at the time his belief that the piles driven were in place and sufficient to support the work. The claimant, relying on the working plan so exhibited

and on the belief of the officer so expressed, and without seeking further information, estimated as a basis for its bid for a less number of piles than it was subsequently required to furnish. The piles so driven were covered with asphalt, and for that reason could not be examined by the claimant to determine their sufficiency without destroying the asphalt, as well as the piles themselves.

Though the number, position, length, and character of the piles so driven were known to the Government, or should have been, the officer, in expressing his belief that the piles driven were sufficient to support the work, does not appear to have acted in bad faith, though the claimant may have relied thereon.

Unless the piles so driven by the claimant are embraced in the contract as necessary to the full and complete performance
73 thereof, the claimant, independent of the belief of the officer so expressed, will be entitled to recover therefor on the ground that they were additional to those required by the contract.

The defendants' contention is that they are embraced in the contract, and in support thereof they rely upon that provision of paragraph 4 of supplemental contract 876A which reads:

"The suction pipes from the pump pit will be supported on piles and cross caps, as may be found necessary, well balanced and firmly chocked. After the suction pipes have been put in place the side of the dock shall be restored to its former condition and similar to the sides of the dock over the old suction pipes."

While the number of piles driven may not have been contemplated by the claimant when making its bid, nevertheless the provision of the supplemental contract referred to was evidently intended to cover the number found necessary for support as well as to complete the work as an entirety.

For these reasons we must hold that the claimant is not entitled to recover on this item.

Item 6. Sheet piling.—While the claimant was engaged in the construction of the suction chamber the engineer in charge, to enable the Government to use the docks for docking vessels as well as to enable the claimant to proceed with the work, required the claimant to drive a number of sheet piles around the suction chamber to stop a leak that had developed in the old piling theretofore driven by the Government, for which the claimant was not responsible, the additional cost of which to the claimant was $323.84.

The question here, as in the previous item, is whether the contract required the claimant to drive the sheet piling or whether the work was necessary to enable the claimant to perform the contract. While the contract does not in terms provide for this work, it appears to have been essential to enable the claimant to proceed with the work, and therefore may be considered as coming under paragraphs 1 and 3 of the specifications, which in substance provide that the declared and acknowledged intention and meaning of the contract is to provide and secure a complete and substantial pumping plant according to the general plans and specifications to the satisfaction of the Chief

of the Bureau of Yards and Docks, and that any details omitted from either plans or specifications, the performance of which is necessary to the construction of the work, of which the engineer in charge shall be the judge, "shall be supplied by the contractor as though fully described and shown, and without additional expense to the Government." In other words, the driving of the sheet piling was essential to the complete performance of the work, and under the terms and specifications referred to as well as the law governing the performance of contracts can not be considered as extra or additional, and therefore the claimant is not entitled to recover therefor.

Item 7. Night work on new suction chamber.—In the month of September, 1902, to enable the Government to dock the U. S. S. Maine and other vessels, the claimant agreed with the Chief of the Bureau of Yards and Docks to keep its men who were engaged in the construction of the suction chamber on night duty, which it did, at an additional cost to it of $636.44.

This item is not seriously contested, since the work was done during the period of delay caused by the Government, and, as
74 the findings show, the work done inured to the benefit of the Government; the claimant is entitled to recover the cost thereof, $636.44.

Item 8. Reconstruction of old suction chamber.—In the performance of the work the civil engineer in charge construed the original contract and supplemental contract 876A as requiring the claimant to build the new suction chamber and also to complete and reconstruct the old chamber, and on appeal the Chief of the Bureau of Yards and Docks sustained the construction of the engineer in charge. The claimant thereafter performed the work, under protest, at an expense to it of $2,609.73.

Paragraph 73 of the specifications, made part of the original contract, provides, among other things, that—

"The present suction chamber on the dry dock must be enlarged so as to provide room for the suction pipe to be installed. * * * Sufficient excavation must be done to enlarge the chamber as shown, and proper sheet piles and bearing piles must be driven if required by the civil engineer in charge. The brick retaining walls and invert arches must be rebuilt, as shown, in a satisfactory manner."

The supplemental contract "A" (paragraph 4) provides:

"The suction chamber in Dock No. 3 shall be enlarged and incased in sheet piling with sufficient bearing piles, brick vault, and concrete bottom, similar to the suction chambers now in Dock No. 3; the bottom of the suction chamber will be on the same level as the bottom in the chamber now in place. The brick walls and bottom to be connected with the old chamber and the present end wall in the old chamber will be removed so as to admit the free and full flow of water to either the new or old suction chamber; the new or enlarged suction chamber will have a large opening for admission of water to the chamber in the side of the dock opposite the new chamber covered by wire grating similar to the opening opposite the old chamber,

allowance in size being made for increased size of the new pumping plant."

The original contract required that "the brick retaining walls and invert arches must be rebuilt as shown, in a satisfactory manner," while the supplemental contract (A) in express terms provides that "this agreement shall be held and regarded as and being supplemental to the aforesaid contract dated September 15, 1909, and shall be subject to all requirements and conditions thereof except as herein provided." We fail to find any provision therein abrogating or modifying the provision of the original contract requiring the claimant to rebuild "the brick retaining walls and invert arches" in a manner satisfactory to the engineer in charge.

The claimant, however, contends that prior to entering into supplemental contract A the engineer in charge so found and stated to it that the old suction chamber was not to be rebuilt; but as all prior negotiations and representations are presumed to be merged in the written agreement we are only at liberty to refer thereto when the language of the written agreement is ambiguous (Brawley's case, 96 U. S., 165.) Nor could the court accept the statement as in the nature of a guaranty in the face of the language of the original contract requiring the retaining walls and invert arches to be rebuilt in a satisfactory manner.

That is to say, the statement of the officer if competent could not be accepted to vary the terms of unambiguous language. The intention of the parties must be determined from the language of the contracts taken together, and thus construing the same we must hold that the claimant was not required to do more than by the terms of the contracts it was obligated to do, and for these reasons the claimant is not entitled to recover in this item.

Item 2. Additional electric wiring.—During the progress of the work of installing the machinery a dispute arose between the contractor and the civil engineer in charge in respect to connecting the motors with the switchboard. The claimant proposed to furnish copper wire of the size called for by the regulations and standard of the Fire Underwriters' Association and the custom and practice of the trade, which would have been effective for the purpose and would have cost about $1,000. The wire so proposed to be furnished was rejected, and the contractor was required to furnish copper wire of the size prescribed by the standard Underground Cable Co. from two and one-half to three times larger in cross section and proportionately more expensive, which the contractor furnished under protest.

The contract does not define the character and size of the wire to be furnished, but paragraph 8 of the specifications provides that the electric power will be delivered at the switchboard by the Government, and all other connections must be made by the contractor, thus leaving the contractor to determine under the custom prevailing the size of the wire to be furnished.

In making its bid the claimant estimated on wire in conformity with the regulations and standard of the Fire Underwriters' Association, and when ready to provide such wire for the purpose, it was required by the engineer in charge to furnish the larger wire at the additional cost of $2,522.00.

The question therefore is, What size wire was called for under the contract or the custom then prevailing? The Government contends that, as the contract provides for a complete and substantial pumping plant to be operated by electricity, the size of the wire required was necessary to meet the operations of the motor under the carrying conditions mentioned in paragraphs 67 and 68 of the specifications. We are unable to agree with this contention, as the findings show that the size of wire proposed to be furnished by the claimant was in conformity with the standard of the Fire Underwriters' Association and would have been effective for the purpose, if not as substantial and durable as the larger wire, and for these reasons we think the claimant is entitled to recover on this item.

Breakage in drain pipes.—During the construction of the pumping plant in October, 1904, as set forth in Finding XI, there were in said navy yard two systems of water pipes, one a fresh water system connected with the water system of the city of Brooklyn, and the other a salt water system belonging to the navy yard, with both of which systems of supply in the navy yard, as required by the contract, the claimant's system of priming the pumps in the pump well was connected. The pressure of these respective systems was subject to sudden increase for fire purposes in the salt water system and to a cessation of use at times in the fresh water system for city purposes.

In the month of October, 1904, the outlet of drain pipe No. 1, being a part of claimant's priming system, burst as a result of sudden pressure caused by the Government in one or the other of said water systems without notice to the claimant and without its fault.

38 The claimant immediately repaired said break, and to forestall accidents of a like nature in future placed a reducing valve in said priming system. Notwithstanding this precaution, the elbow of drainpipe No. 2 was subsequently broken by like pressure in one or the other of said water systems. Claimant immediately repaired this break, the cost of all which to the claimant was $699.97.

The Government contends that under paragraph 21 of the specifications the claimant is "responsible for the entire work and every part thereof, and for all tools, appliances, and property of every description used in connection therewith." And further it is therein provided that the claimant "shall specifically and distinctly assume all risks of damage or injury from any cause to property or persons * * * and to protect and defend the United States against all claims on account of any such damage or injury."

We do not think the construction contended for by the Government is well founded, as here the findings show that the breaks from the sudden pressure were caused by the Government without notice

to the claimant and without its fault. The difficulties thus encountered were not such as claimant in the performance of its contract was bound to assume.

The claimant had not agreed to assume the risks which the Government might impose by acts not contemplated when the contract was entered into, and for these reasons the claimant is entitled to recover on this item the amount so expended, $699.97.

Replacing broken valve.—During the progress of the work the Government, on its own account, installed in the pump pit an electrical heater so near the valve therein that thereby the same became heated, and while in this condition and during a high tide and a western storm in conjunction, the caisson of Dry Dock No. 3 was in danger, and as a precautionary measure the engineer in charge caused said dry dock to be partially flooded to equalize the pressure on said caisson, thus filling the suction pipe leading to the valve with cold water, causing the same to crack, to replace which the claimant expended the sum of $604.

The Government contends that it was the duty of the claimant to have made provision against expansion and contraction caused by changes in temperature, though the contract makes no provision therefor. This contention may be well founded as to ordinary changes in temperature causing expansion and contraction, but not to such extraordinary changes caused by the action of the Government. That is to say, the failure of the claimant to make provision against such extraordinary changes can not be construed as the omission of a detail the performance of which was essential to carry out the intention of the parties. Nor can the difficulty resulting from such omission be considered as one of the risks which the claimant was to assume in the performance of its contract. Flooding the pit to equalize the pressure on the caisson caused by the Government installing on its own account an electrical heater in the pump pit, whereby the claimant was damaged, can not be regarded as a risk which the claimant assumed or which was in contemplation by the parties when the contract was entered into. Therefore the claimant is entitled to recover on this item the sum of $604.

Renovating electrical machinery.—The electrical machinery was delivered at the navy yard some time prior to May, 1903, when
77 the work was being delayed by the Government, but the same could not be installed because the pumps were not in place. The installation of the pumps was delayed for about 11 months after May 1, 1903, because the claimant's subcontractor was unable to get certain castings necessary for the installation of the pumps.

During most of the period of delay the electrical machinery was stored by the claimant under a shed covered with weather or tar paper, which was not sufficient to protect said machinery from the elements, and it became rusted. As a result of inefficient storage, for which the Government was not responsible, the claimant was required by the engineer in charge to overhaul and renovate the machinery before installing the same.

The Government contends, and we think rightly, that the delay in installing the machinery was not due to the delay of the Government when the machinery was delivered at the yard, but was due to the failure of the claimant's subcontractor in getting ready the castings necessary for the installation. Furthermore, the renovation of the machinery was not made necessary by the delay of either party, but was from insufficient storage or housing by the claimant, for which the Government was not responsible.

The requirement of the engineer in charge that the claimant overhaul and renovate the machinery to the extent it did before installing same may have been unreasonable, but under the findings we are unable to reach the conclusion that the expense to which the claimant was put was caused by the Government. On the contrary, had the claimant exercised reasonable care in protecting the machinery from the weather, as by paragraph 54 of the specifications he was bound to do, the same would have been in good condition when ready for installation. By paragraph 66 of the specifications the claimant had agreed that "the design, material, workmanship, and finish of all electrical machinery and appliances must be equal to the best quality of similar machinery and appliances made by the Westinghouse Electric and General Electric Manufacturing Companies." To meet this requirement, in the opinion of the engineer in charge, it was necessary to overhaul and renovate the machinery so found to have been rusted from exposure to the weather. For these reasons the claimant is not entitled to recover on this item.

It follows from what we have said that the defendant's motion for a new trial must be overruled. The motion to amend findings is allowed in part and overruled in part, but the former findings of fact and opinion are withdrawn and modified findings and opinion are this day filed nunc pro tunc as of May 13, 1912, the judgment as then entered to stand.

HOWRY, J., was not present when this case was tried and took no part in the decision.

78 VI.—*Judgment of the court.*

Filed May 13, 1912.

THE UNITED ENGINEERING AND CONTRACTING COMPANY
vs.
THE UNITED STATES. } No. 30072.

At a Court of Claims held in the city of Washington on the 13th day of May, 1912, judgment was ordered to be entered as follows:

The court, on due consideration of the premises, find for the claimant, and do order, adjudge, and decree that the claimant, the United Engineering and Contracting Company, do have and recover of and from the United States the sum of eighteen thousand eight hundred and fifteen dollars and seventy-seven cents ($18,815.77).

BY THE COURT.

79 VII.—*Defendants' motion to amend findings of fact and for a new trial.*

Filed July 19, 1912.

Defendants' motion to amend the findings of fact and for a new trial.

Come now the defendants, by their Attorney General, and move the court to amend the findings of fact and for a new trial, alleging as grounds therefor error of fact, as more particularly set out in and by the amendments to the findings hereinafter set forth and error of law in the conclusion of law and judgment of the court, as hereinafter specified.

ERROR OF FACT.

I.

Finding X.—Item 4 (p. 4).

Strike out the phrase, "in accordance with the custom of the trade," in the first sentence of said finding.

Insert at the end of the first sentence of said finding the following:

"It was not the custom of the trade for manufacturers of
80 valves to furnish gear casing for the same, in the absence of a special requirement in the specifications therefor." Rasmuson, qs. 12 and 13, p. 265; xq. 25, p. 267; Hough, q. 42, p. 240.

"It is and was customary in the installation of machinery involving danger to life or limb to cover the gearing or other dangerous parts thereof with a casing or other means of protection." Allen, q. 20, p. 303, 304; Hollyday, par. 7, p. 214; Rasmuson, xq. 24, p. 266; Hough, qs. 38, 42, pp. 239, 240.

Insert, after the word "were," at the beginning of the fourth line of said finding, the following:

"Intended by claimant to be"

Insert, at the end of said sentence, the following:

"But this scheme was abandoned by claimant before the plant was ready for test, whereupon it became necessary for a workman or workmen to be stationed in close proximity to said valves during their operation, and in addition thereto the defendants built a plank walk across the top of the pipes in the pumping plant for the purpose of facilitating the movements of the workmen in going to and from said valves. In passing along this walk and in attending the valves during their operation the workmen were brought into close proximity with the same." Bellinger, qs. 29–36, p. 323; Allen, qs. 17–20, p. 303; Hough, letter of October 10, 1904, p. 177.

Strike out the third sentence in said finding, beginning with the words "after the plant" and ending with the word "workmen," followed by a semicolon.

81 Item 5 (p. 5).

Strike out the clause, "of which defective piles the Government had knowledge through its engineering officers, but gave no other or further information to the claimant than that stated," which occurs about the middle of the paragraph.

Item 12 (p. 6).

Insert after the word "trade," in line 7, the following: "of building wiring."

Strike out the clause, "which would have been effective for use underground as well as overhead," which occurs near the middle of said paragraph. Ingram, qs. 21–24, p. 334; Hill q. 13, pp. 315, 316; q. 22, p. 317; xq. 3, p. 318; rdqs. 5 and 6, p. 319.

Add the following paragraph:

"Where electric current is to be conducted in closely confined conduits or in well or pits where the air can not circulate freely, the wire conducting the same must be larger than for building wiring, where the air can circulate freely, to protect the insulation from being destroyed by overheating.

"The operation of the motors in the pump well, where the wires connecting them with the switchboard were located would raise the temperature of the surrounding atmosphere to a much higher degree than the outside air. It was therefore necessary to have wires from two to two and a half times as large as those proposed to be
82 furnished by claimant to safely conduct the required current."

Ingram, qs. 22–36, pp. 334, 335; Hill, q. 16, p. 316; Gustafson, q. 15, p. 262.

Finding XI.—Breakage in drain pipes (p. 6.)

Strike out the clause, "and to excessive use at times of the fresh-water system for city purposes," in the last line of said finding, and insert in lieu thereof the following:

"And by reason of the fact that at certain times in the day and on certain occasions in the week there was a cessation of the use of large amounts of water from the city fresh-water system." Hough, qs. 67, 68, p. 247, xq. 122, p. 254; Claims, par. 2, p. 222.

Strike out the clause, "caused by the Government in one or the other of said water systems without notice to the claimant and without its fault," at the end of the first sentence of the second paragraph of said finding, and insert in lieu thereof the following:

"In the fresh-water system." Hough, xq. 122, p. 254.

II.

ERROR OF LAW.

The court erred—

First, because on the facts stated in the eighth finding of fact judgment should have been rendered for the defendants instead of

the claimant; second, because the judgment of the court on item 4 of the tenth finding of fact is contrary to the law and the evidence
83 in the case; third, because the judgment of the court on item 12 of Finding X is contrary to the law and the evidence in the case; fourth, because the judgment of the court on Finding XI is contrary to the law and the evidence in the case.

JOHN Q. THOMPSON,
Assistant Attorney General.

PHILIP M. ASHFORD, *Attorney.*

84 VIII.—*Order filed November 11, 1912.*

The defendants' motion for a new trial is overruled.

Defendants' motion to amend findings is allowed in part and overruled in part.

Former findings and opinion withdrawn and a modified findings and opinion this day filed nunc pro tunc as of May 13, 1912.

Judgment as entered May 13, 1912, to stand.

BY THE COURT.

85 IX.—*Application for, and allowance of, appeal.*

From the judgment rendered in the above-entitled cause on the 11th day of November, 1912, in favor of claimant, the defendants, by their Attorney General, on the 12th day of Nov., 1912, make application for, and give notice of, an appeal to the Supreme Court of the United States.

JOHN Q. THOMPSON,
Assistant Attorney General.
P. M. A.

Filed Nov. 12, 1912.

Ordered: That the above appeal be allowed as prayed for.
Nov. 12, 1912.

BY THE COURT.

86 In the Court of Claims.

THE UNITED ENGINEERING AND CONTRACTING COMPANY
vs.
THE UNITED STATES. } No. 30072.

I, John Randolph, assistant clerk of the Court of Claims, hereby certify that the foregoing are true transcripts of the pleadings in the above-entitled cause; of the findings of fact and conclusion of law, and opinion of the court; of the judgment of the court; of the motions of the defendants for a new trial and for amendment of the findings of fact and of the order of the court thereon; of the

application for allowance of appeal to the Supreme Court of the United States and allowance of same.

In testimony whereof I have hereunto set my hand and affixed the seal of said Court of Claims at Washington, D. C., this 19th day of November, A. D. 1912.

[SEAL.]

JOHN RANDOLPH,
Assistant Clerk Court of Claims.

(Indorsed on cover: File No. 23427. Court of Claims. Term No. 852. The United States, appellant, vs. The United Engineering and Contracting Company. Filed November 22d, 1912. File No. 23427.

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